

JUL 25 1928

MOTOR AGE

A Chilton Class Journal Publication
Published Weekly

July 19, 1928

AUBURN

POWERED BY LYCOMING

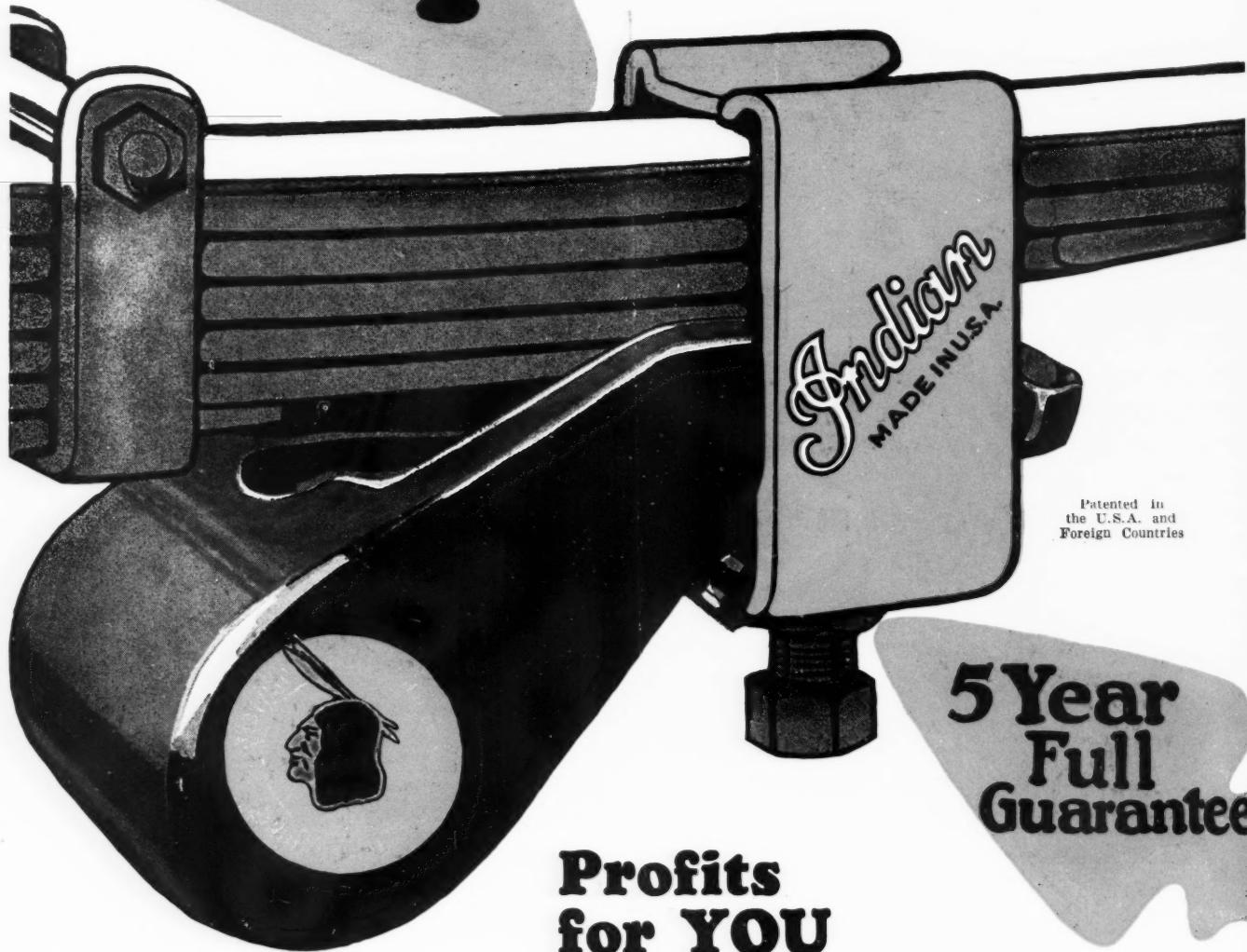
**One Auburn distributor in
1927, notwithstanding the
bad last half of the year,
made \$56,000.00
net profit on less than
1000 new automobiles.**

What Is YOUR Expectancy?

Auburn Automobile Co., Auburn, Indiana

**\$15
a set
of 4**

Indian
**AUTOMOBILE
SHOCK ABSORBERS**



Patented in
the U.S.A. and
Foreign Countries

**5 Year
Full
Guarantee**

**Profits
for YOU**

Every set of INDIANS sold means six dollars clear profit for you. And no investment—our 74 to 1 Plan tells how to handle INDIANS without investing one cent of money.

INDIANS are easy to sell—Free Trial Offer and 5-Year Guarantee. Where can you beat that proposition?

Easy to install, too. INDIANS can be put on in 20 minutes with no tool but an ordinary wrench.

Dealers all over the country are pushing INDIANS. Thousands are being sold each week. You too, can sell them and make six dollars profit on every sale.

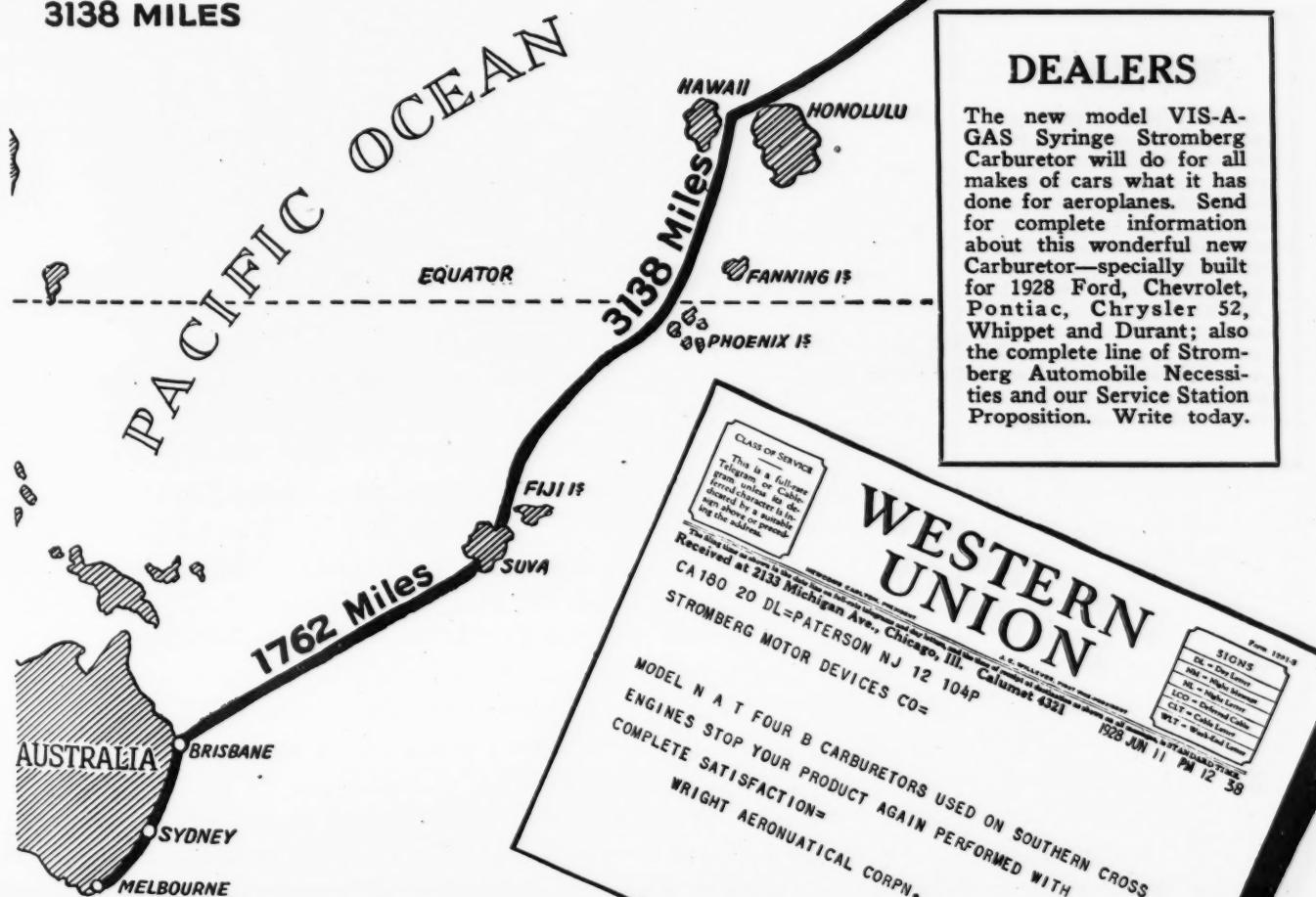
Write today for the detailed plan.

Indian SALES CORPORATION
Subsidiary of
Indian Motocycle Company
SPRINGFIELD, MASS., U.S.A.

U.S.A. to AUSTRALIA with STROMBERG



7300 MILES IN
83 HRS. & 21 MIN.
HAWAII TO FIJI IN
ONE HOP. AN OVER
WATER FLIGHT OF
3138 MILES

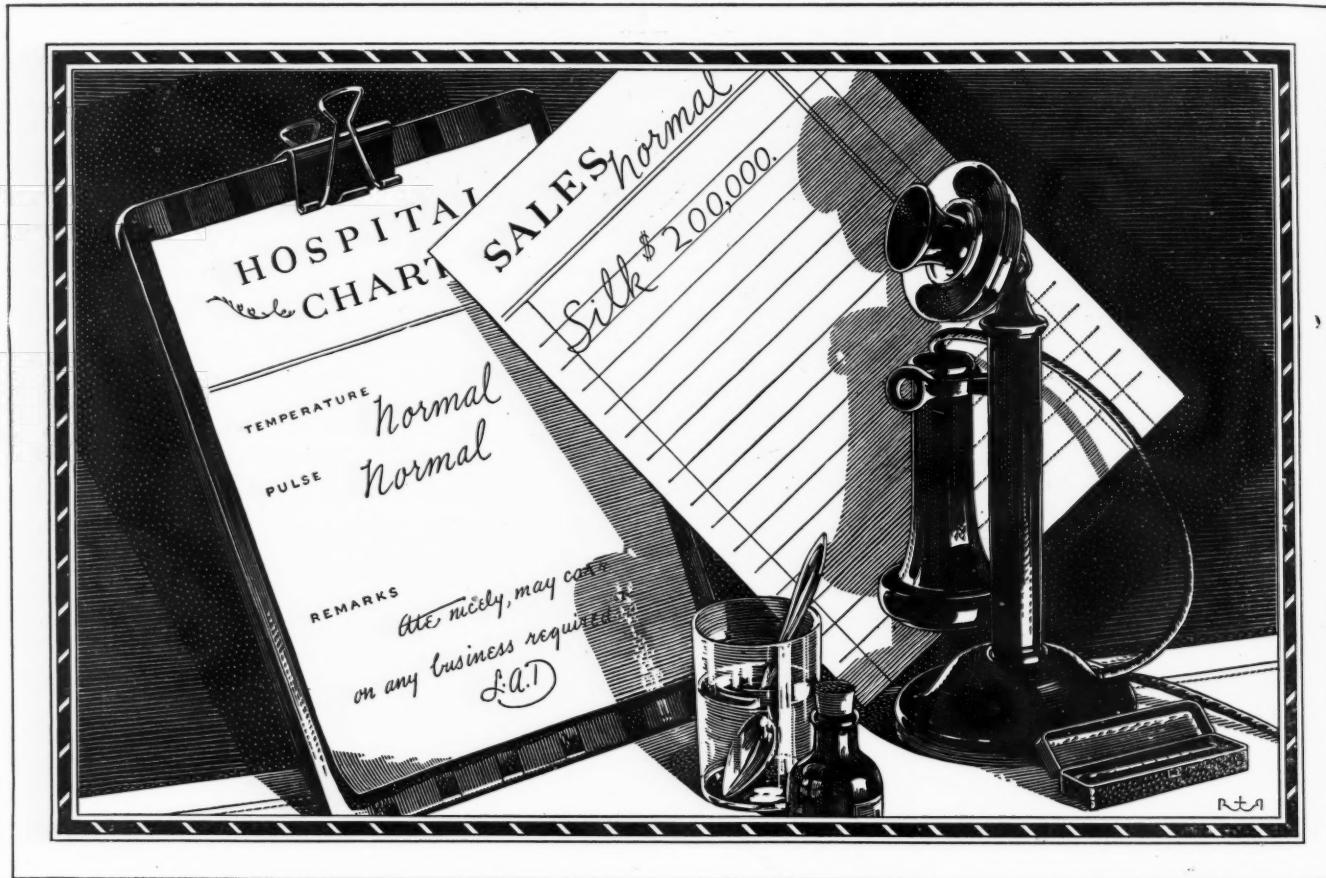


DEALERS

The new model VIS-A-GAS Syringe Stromberg Carburetor will do for all makes of cars what it has done for aeroplanes. Send for complete information about this wonderful new Carburetor—specially built for 1928 Ford, Chevrolet, Pontiac, Chrysler 52, Whippet and Durant; also the complete line of Stromberg Automobile Necessities and our Service Station Proposition. Write today.

"STROMBERG"
will Improve any Motor
STROMBERG MOTOR DEVICES CO.
58-68 E. 25TH ST. CHICAGO, ILLINOIS.

Laid up in the Hospital he sold \$200,000 worth of Silk



C An Advertisement for Bell Long Distance Telephone Service

A NEW YORK raw silk salesman had to go to the hospital for 10 days. His illness was minor, but the loss of time was serious. He secured a room with a telephone. Throughout his convalescence, he kept informed of the course of the market. Sent and received his cables by telephone. Kept in constant touch with office and customers. Sold more than \$200,000 worth of silk.

A Milwaukee dry goods salesman was forced to cancel his regular trip because of a broken leg. From his sick-room, he covered in 5 days by telephone the same territory that took 5 to 6 weeks of traveling. And he gathered in 90% of his usual business.

Held up by road conditions, a tire salesman had to abandon a certain trip in southern Nebraska. He went to the telephone office and covered his territory by Long Distance. Sold, \$1280 worth of tires; charges, \$6.20.

In emergencies and in the regular day's work, hundreds of concerns are using Long Distance to get things done and to increase profits.

You will be surprised how little the calls now cost. New station to station day rates are: Los Angeles to New York, \$8.75. Dallas to Chicago, \$3.25. Baltimore to Philadelphia, 70c. . . . Calling by number takes less time. Number, please?



MOTOR AGE

Vol. LIV

Reg. U. S. Pat. Off.
Established 1899

No. 3

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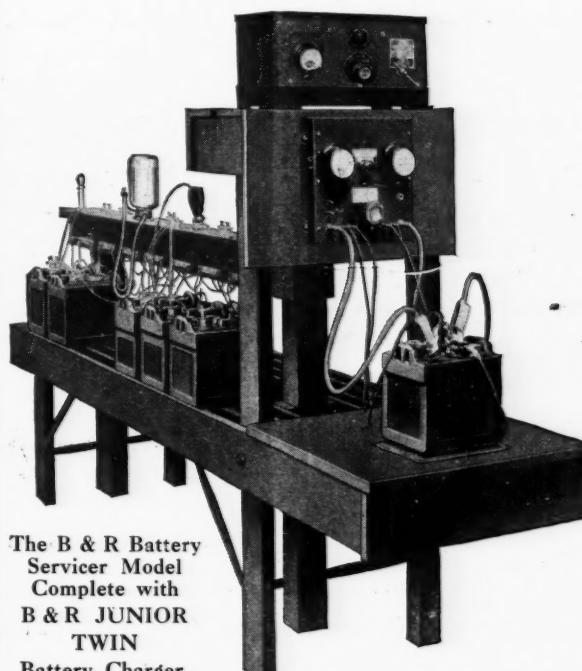
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 Entered as Second Class Matter, June 2, 1927, at the Post Office at Philadelphia, Pa.,
 under Act of March 2, 1879.

A Complete Battery Station Ready-to-Use



No clearing away of wall benches, no planning or building of shop-layout required with this *Ready-to-Use* B & R Battery Servicer.

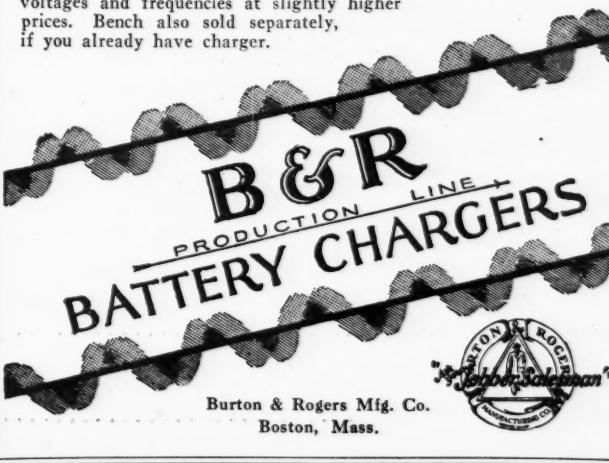
B & R Servicer Bench itself built of spruce, coated with acid-resistant paint with stained and varnished cypress panels and rubber-covered cypress shelf. Floor space 10'-0" x 2'-6".

A unique system of wiring, using the famous SHURO Battery Connectors, permits cutting batteries in and out of the charging line without touching the other batteries.

The B & R Charger (B & R JUNIOR TWIN shown in cut) sets on upper shelf. Beneath on panel is the 2 meter B & R Selective Capacitor for checking (under load) cells of battery about to be charged or repaired. Heavy leads are provided for all tests. At rear is Precision Charge-Test Voltmeter to indicate voltage of cells on charge. Special type distilled water bottle with hose mounted on holder so as to reach all batteries on bench.

The B & R Servicer shipped knocked down, and easily assembled by anyone in a very short time.

Made in 3 types dependent on B & R Charger used. Prices complete with charger, test equipment and accessories, (110 v.-60 cycles), \$223.00 to \$275.00. Other voltages and frequencies at slightly higher prices. Bench also sold separately, if you already have charger.



If... You Want a Catalog or Literature

The Size or Price of Any Garage Equipment or Parts or Anything Automotive that Interests You—

Just Ask Us!



Come to Automotive Headquarters!

If you are interested in information about shop supplies, replacement parts, accessories, etc., check them in the squares below, and MOTOR AGE will see that data are forwarded you.

This is the old established MOTOR AGE "Clearing House" service, made easier for you.

Tear Off the Coupon—Check Not More Than 10 Items—Information Will Follow

Motor Age, Chestnut and 56th Sts., Philadelphia, Pa.

I want catalogs or literature with prices on the items checked below.

Replacement Parts

- Armatures, rewound
- Axle shafts
- Bearings, ball
- Bearings, replaceable
- Belts, fan
- Brake and clutch lining
- Brake drums
- Bushings
- Carburetors
- Fuses
- Gears, rear axle
- Gears, timing
- Gears, ring
- Ignition parts
- Mufflers

Pistons

- Piston pins
- Plates, clutch
- Rings, piston
- Shims
- Spark plugs
- Valves
- Vises, machinists
- Wire, all electrical
-
-
-
-
-
-

Shop Supplies

- Babbitt metal
- Cement, iron
- Cement, radiator
- Cleaners, floor
- Covers, fender and upholstry
- Enamels
- Hacksaw blades
- Hand Soap (paste, etc.)
- Mechanics' clothing
- Metal and body polish
- Packing for pump
- Rod, welding and brazing
- Paper, emery and sand
- Solder, self fluxing
-
-
-
-

Accessories

- Anti-freeze solution
- Bumpers
- Carburetor air cleaners
- Car heaters
- Cigar lighters
- Clocks
- Engine heat indicators
- Luggage carriers
- Radiator shutters
- Rear vision mirrors
- Shock absorbers
- Signal devices
- Spring covers
- Tire covers
- Trunks
-
-

Name Street and No.

7-19-28

City State

Note: When convenient please enclose business card or letterhead. If from an individual state nature of employment and by whom employed

During the first half of 1928 the sales of Studebaker cars increased 20% over last year

Now with a new eight-cylinder 109 horsepower sedan at \$1685, a new six-cylinder car at \$835 and 28 other beautiful new models, there is no doubt that 1928 will be a money-making year for the far-sighted dealer who secures the Studebaker-Erskine franchise.

How about your territory?

New Contract for Towns and Villages

For small communities Studebaker offers an unusually profitable contract. Hardly any capital is necessary. No shop need be operated. No used cars need be handled. No commitments need be made to purchase any particular number of cars. You may confine your selling effort to the opening wedge of the line—The Erskine Six at \$835 f. o. b. factory. Maintaining an Erskine demonstrator entitles you to sell all other Studebaker models—not only Commander, Dictator and President Straight Eight, but a profitable and popular line of commercial cars as well. Mail the coupon TODAY, or write direct to Dept. 51 for information.

THE STUDEBAKER CORPORATION OF AMERICA
Dept. 51, SOUTH BEND, INDIANA

Please send me full information on the Studebaker-Erskine franchise.

Name

Street Address

City and State

My present business (if selling cars now, state make)

NORTHEASTERS



Commanding yet courteous, Northeasters are the choice of value-wise motorists. Concentrate your sales efforts on these fast-selling horns. \$5.00 and \$7.50 at retail. Magnetic—Motor-Driven. Generous dealer profit. ⚡ ⚡ ⚡

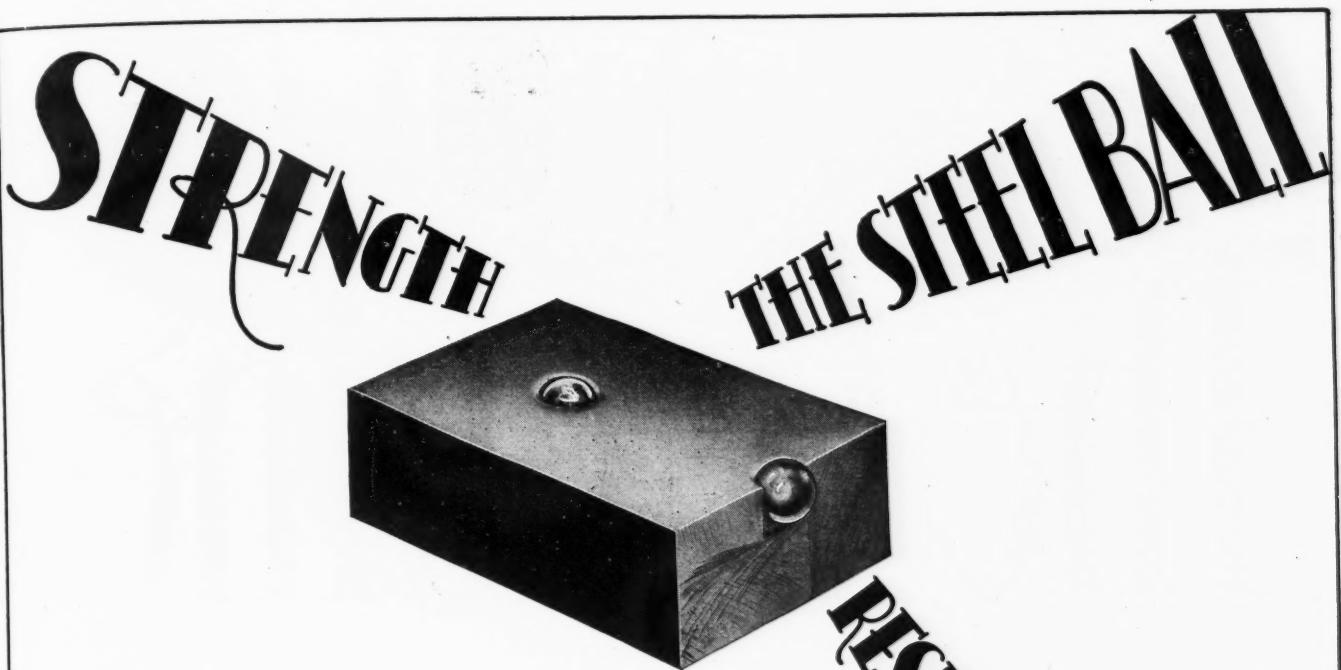
NORTH EAST SERVICE INC.

Rochester



New York

Service Stations in principal cities throughout the world



A TRUE SPHERE

is the strongest shape for a given size
known to man.

The steel ball in a New Departure Ball Bearing combines accuracy with a strength that is seldom entirely appreciated. 17 $\frac{1}{32}$ -inch New Departure steel balls were forced into a tough steel block under 108,000 pounds pressure—and they are still good!

Consider this strength combined with an accuracy in sphericity to within .000001 inch (one-millionth of an inch) and you have some conception of the superiority of New Departure Ball Bearings over other anti-friction bearing types.

THE NEW DEPARTURE MANUFACTURING COMPANY
BRISTOL, CONNECTICUT

San Francisco

1004

Chicago

New Departure
Quality
Ball Bearings

Detroit

THE STEEL BALL

RESISTING POWER



The Genuine- for a Real Job

Most of the cars on the road are equipped with Timken Bearings, for endurance, silence, economy, and efficiency.

Service your cars with genuine Timken Bearings and maintain the same excellence which the car maker built in. Genuine Timkens protect you because their exclusive design and material protects motor car efficiency.

The right size of bearing and the right information on any Timken mounting is obtainable right near you. Telephone your Authorized Timken Distributor. There are hundreds of them, backed by Timken Direct Factory Branches.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO

Technical information regarding bearing sizes and mountings is obtainable from the Timken Roller Bearing Service & Sales Company's Branches located in the following cities: Atlanta, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Dallas, Denver, Detroit, Kansas City, Los Angeles, Memphis, Milwaukee, Minneapolis, Newark, New York, Omaha, Philadelphia, Pittsburgh, Richmond, St. Louis, San Francisco, Seattle, Toronto, Winnipeg

TIMKEN
Tapered
ROLLER BEARINGS

MOTOR AGE

VOLUME LIV

Philadelphia, July 19, 1928

NUMBER 3

New Marks Are Set by Auburn

Speedster Travels 2000 Miles at Average Speed of 84.6967 m.p.h.

RECORD WAS 73.349

WASHINGTON, D. C., July 16—The establishment by Auburn of 12 new speed records for fully equipped open stock cars was officially announced today in a bulletin issued by the A.A.A. The run was made by two Model 115 speedsters on the Atlantic City Motor Speedway at Amatol, N. J., on June 30 and June 31. The records are as follows.

Distances	Former Record	New Auburn Record
5 miles	80.454	85.4985
10 miles	80.694	85.8656
50 miles	80.652	86.1302
100 miles	81.103	86.2688
500 miles	79.614	84.5501
1000 miles	75.365	84.8252
2000 miles	73.349	84.6967

Periods in Hours		
1	81.101	85.5932
3	80.391	84.5080
6	79.409	84.5796
12	75.136	84.8606
24	75.623	84.7354

Souders Seriously Hurt in Race on Dirt Track

DETROIT, July 16—Traveling at a terrific clip to make up for time lost in a pit stop, George Souders, winner of the 1927 Indianapolis 500-mile race, crashed through the inner rail during a 100-mile dirt track race here yesterday and sustained injuries so severe that little hope is entertained for his recovery.

The accident occurred near the finish of the event, which was won by Howard Taylor, of Flint, Mich., after Souders had emerged from the pit where he had gone for repairs. Souders' car turned turtle a number of times and was wrecked.

Fargo Express is Name of New Line of Trucks

DETROIT, July 17—Announcement of its purpose to extend its activities into the commercial vehicle field with a de luxe line of delivery vehicles and buses, to be known as Fargo Express, was made by one of the leading motor car producers today. The identity of this company and details of the product will be made known later.

She Turns Good Turns Into Real Good Car Sales

GIRLS who live in and around the Grand Concourse and work downtown very often accept rides from commuters motoring in from the Bronx and points north, in the morning. One of these young business women always waits until she is offered a ride by some gentleman driving an old model car. On the way to her office she then tells the driver casually of the wonders of the new model of the Runover Six. She happens to know that the Runover company would give him a generous allowance for his old car, in trading it in for a new one. In fact, she says, she is a friend of the manager of the salesrooms and would be glad to take him around there and get him the most favorable figure on his old machine. She wouldn't do this for everyone—but one good turn, etc. The young lady made four such sales in June, her first month at this work, and made more than her whole year's salary as a stenographer.—*The New Yorker*.

Chamberlain is Named Director of GaMeDa

CHICAGO, July 16—Percy E. Chamberlain, has been appointed managing director of the Greater Market Development Department of the Automotive Equipment Association.

The G.M.D. program will concentrate on activities making for sound management and sound merchandising. The efforts of the committee will be centered upon proper administration of those activities which experience has demonstrated are valuable, according to N. H. Boynton, chairman.

Ford Assembly Plants End Lengthy Idleness

CHICAGO, July 12—The Ford assembly plant here with a capacity of 280 cars a day, has opened after being idle 13 months. The plant will operate with a force of 200 men at first, producing 20 to 30 cars a day, but is expected to expand.

The Columbus, Ohio, assembly plant now is operating on the same basis.

Chrysler Clears Deck for De Soto

Will Concentrate Production in Large Highland Park Plant

5000 ASK AGENCIES

DETROIT, July 17—The Chrysler Corp. is making extensive plant alterations and additions to provide production facilities for the De Soto Motor Corp., a division of the Chrysler Corp.

Production of the Chrysler 65 is being removed from the Highland Park plant to the Jefferson Avenue plant, which has been greatly enlarged, and where it will be completely installed by Oct. 1. After that date all Chrysler 65, 75 and 80 models will be produced at the Jefferson Avenue plant, leaving the mammoth Highland Park plant for the Chrysler, Plymouth and the new De Soto, which will be introduced soon.

J. E. Fields, president of De Soto, stated that all the space heretofore devoted to the Chrysler 65s at Highland Park will hereafter be devoted to De Soto production. As demand for De Soto increases, production facilities will be stepped up.

According to C. W. Matheson, vice-president in charge of De Soto sales, 2000 De Sotos will be produced in July. The company expects to make 5000 in August and 7500 in September, and thereafter production will be guided by demand.

Mr. Matheson stated that the De Soto Motor Corp. set out to seek 700 direct and 2800 associate dealers. Saturday night the company had 460 direct dealers and each of these had obtained approximately four associate dealers. He reports his company has approximately 5000 applications on file for associate dealers, and he expects the entire De Soto dealer organization will be completed in September or October.

Studebaker Commanders Win in Foreign Tests

SOUTH BEND, IND., July 19—Two Studebaker Commanders won all the highest awards for their class in the recent German Alpenfahrt Endurance and Speed Contest. They were the only cars to complete the test without penalties, and as a result were awarded four separate prizes. The race was in the nature of a six-day tour, with daily tests of roadability, ease of handling, hill climbing, et cetera.

N.A.P.A. Sales Gaining Steadily

Replacement Parts Industry Looks for Biggest Year

DETROIT, July 16—The replacement parts industry appears to be fairly well launched on another record-breaking year, if a report just released by the local office of the National Automobile Parts Association may be taken as a criterion.

Sales of replacement parts for the first five months of 1928 show an increase of 17.57 per cent over the corresponding period of last year, according to this report.

"This average of gain over 1927 is very encouraging," stated Charles H. Davis, executive secretary of N.A.P.A. "Although our total annual gain during 1927 was 19.1 per cent over 1926, this largely was realized by the volume during the summer months. If we are able to enjoy a relatively increased volume this summer, our particular group seems to be in a fair way to an even larger increase in 1928."

Porter a Bank Director

LANSING, July 16—Drury L. Porter, vice-president and treasurer of the Motor Wheel Corp., has been elected a director of the Capitol National Bank.

Franklin Mfg. Co. Dividend

H. H. Franklin Mfg. Co. has declared quarterly dividend of 1 1/4 per cent, payable Aug. 1 to stockholders of record July 20.

He Doubled Business By Letting Motorists See "How It Worked"

IN the interest of more expeditious handling of brake service during the warmer seasons, the H & S Service, Inc., at Hartford, Conn., removed its brake testing machine out of doors.

The machine was placed beside hydraulic lift which is used for oiling and greasing cars. Since it was placed out of doors the brake business of the firm has more than doubled. The machine works as a sales getter.

Hutto Again Adds Space

DETROIT, July 14—The Hutto Engineering Co., Inc., manufacturer of Hutto cylinder grinders and machines is adding to its plant for the third time in four years.

Chevrolet Adopts "Z" Plug

DETROIT, July 17—Due to increased power of its 1928 engine, Chevrolet has adopted the "Z" type AC spark plug, the first spark plug change in its history. All previous models require type "B."

Packard Motor Car Dividend

Packard Motor Car Co. has declared an extra cash dividend of \$1 a share, payable July 31 to stockholders of record July 19, and also the regular monthly cash dividends of 25 cents, payable Sept. 30, Oct. 31 and Nov. 30.

Uniform Traffic Signs for Mass.

Governor Signs Bill Which May Have Far-Reaching Effect

BOSTON, July 9—Governor Fuller has signed a bill that promises to place Massachusetts as the first state to provide that all traffic signs, lights, marks and signal systems are to be uniform through its borders. This recommendation was made by the governor's safety committee, and Governor Fuller sent it along to the legislature. Now Commissioner William F. Williams, of the Public Works Department, has issued a statement calling attention to the law, declaring that it creates great opportunities for Massachusetts to establish constructive leadership in co-ordinating of traffic throughout the state.

Fort Touring Pacific Ports

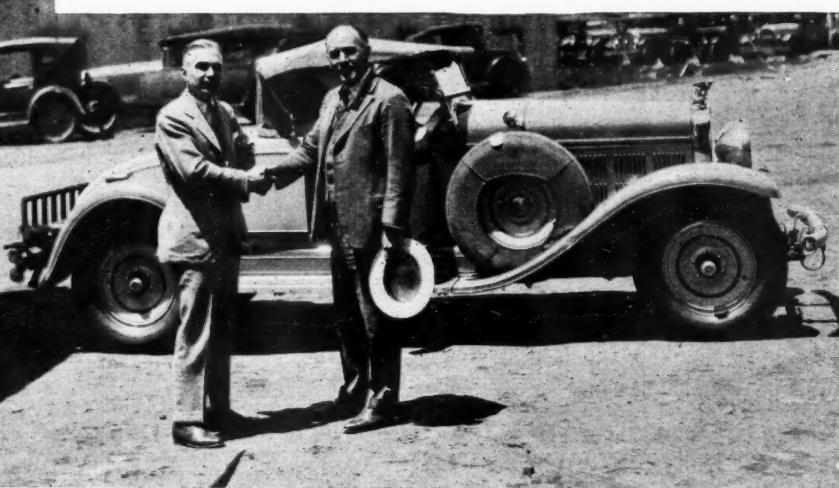
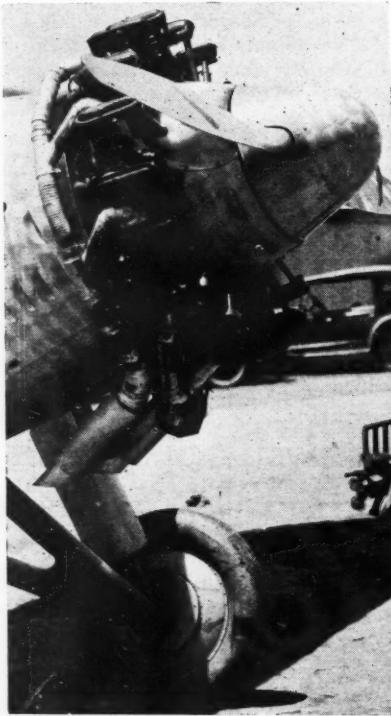
SAN FRANCISCO, July 14—James H. Fort, vice-president of Fageol Motors Co., has left on a foreign trade tour which will take him to every port on the Pacific, including the South Sea Islands, from which he will not return until the end of June, 1929.

Tire Dealers Hear C. E. Allen

ATLANTA, July 16—Thirty Atlanta tire firms were represented at a special meeting of the Atlanta Tire Dealers' Association recently, members hearing an interesting and instructive address by C. E. Allen, credit manager, Atlantic & Lowry National Bank, on "Overhead Costs and How to Reduce Them."

They Know Transportation

RUSSELL E. GARDNER, president of Gardner Motor Co., and Col. Halsey Dunwoody, assistant to the president, and vice-president of the Gardner company. Russell Gardner knows cars and Col. Dunwoody knows airplanes, as well as automobiles, having been assistant to Gen. Dawes in charge of airplane purchases for the whole A. E. F. in France



Save Road Funds By Resurfacing

New York Retrieves 77 Per Cent of Original Value of Payment

NEW YORK, July 16—The wisdom of constructing roads of long lasting materials with a high salvage value was recently brought to light by the New York State Highway Department, which saved 77 per cent of the original cost of an old thin, concrete pavement.

A thin concrete pavement 14 feet wide was laid in Seneca county 14 years ago. The stress of modern traffic made it necessary to widen this old pavement to 18 feet and also to thicken the strip from four and a half inches to nine inches. By placing the new concrete over the old nearly 2000 cubic yards of concrete were saved. At the cost of \$13.71 per cubic yard the total saving amounted to \$26,800, or approximately 77 per cent of the original cost of the thin and narrow concrete.

Steel Inner Tubes

MINNEAPOLIS, July 16—Manufacture of steel inner tubes for tire castings has begun by the Reliable Airless Tire Corp., capitalized at \$50,000. M. J. C. Nyborg, the inventor, is president of the company.

C.I.T. Opens Still Another

NEW YORK, July 17—Commercial Investment Trust Corp. has opened branch offices, through its subsidiary, the C. I. T. Corp., in Portland and Binghamton, N. Y., to serve car dealers and distributors in the surrounding territories.

Dodge Truck Demand Big

DETROIT, July 17—Overtime schedules and record-breaking production are being maintained in all plants of the truck division of Dodge Brothers, Inc., in an effort to meet the unprecedented demand that is being made for the new line of six-cylinder Graham Brothers trucks recently announced.

Officials state they are finding it impossible to date to meet the dealer and public requirements. It is possible that it will be found necessary to operate the plants on both day and night shifts in the immediate future.

Reports show that unfilled orders on hand are among the heaviest in the history of the company.

K. C. Branch of Credit Co.

KANSAS CITY, July 14—Kansas City has been selected for a branch of the Universal Credit Co. to handle paper on Ford cars for western Missouri, northern Arkansas and Kansas.

Firestone Tire Co. Dividend

Firestone Tire & Rubber Co. has declared quarterly dividend of \$2, payable July 20 to stockholders of record July

Continue "Walk" in Graham-Paige



Some day you meet the Knapsack Trio. They are New Yorkers—newspaper women, authors and lecturers—who left home to encircle the globe on foot. When they reached Chicago, they actually had to walk just eight miles since leaving New York. The Ford-Stout airline gave them a lift from Cleveland to Detroit, and the Graham-Paige Motors Corp. carried them in a special eight-cylinder car to Chicago.

10, and 1½ per cent quarterly dividend on preferred stock, payable July 16 to stockholders of record July 1.

Takes on Velie Air Line

ST. LOUIS, July 16—Lambert-Graves Motor Co. has been awarded distributorship for the new Velie monocoque in the St. Louis district.

Georgia Has More Cars

ATLANTA, July 14—Revenue from automobile licenses in this state for the first six months of 1928 surpassed the entire total for the 12 months of 1927, making certain that in this respect 1928 will be the department's largest year.

Kansas Gas Tax Increases

KANSAS CITY, KAN., July 13—Kansas gasoline tax collections for the year ending June 30, totaled \$5,398,857, a gain of more than two-thirds of a million dollars.

Wilson Joins Simplex

SYRACUSE, N. Y., July 14—"Jimmy" Wilson has joined Simplex Piston Ring Co. of Syracuse.

Following Collision, Fined for Failure to Wear His Eyeglasses

HARTFORD, CONN., July 16—for the first time in the history of the Willimantic court a motorist has been fined for not wearing his glasses. An owner who had been in collision with another car was charged with reckless driving and with not having his registration with him. When he appeared in court he had the registration which specified that he should be wearing eyeglasses, and having failed to do so was fined accordingly.

Spring Shackles Meet Test

NEW YORK, July 14—Recent announcement that the new Studebaker and Erskine cars are equipped with Fafnir ball bearing spring shackles came after a series of very rigid tests, according to the Fafnir Bearing Co.

These tests were both laboratory and road tests and covered the period of a year with 177,911 miles of severe driving. Eleven cars were used in road experiments, equipped with Fafnir shackles, and these cars were driven at high speed over the worst possible roads through sand, ruts, mud and water.

Maryland Registrations Gain

BALTIMORE, MD., July 14—Total registrations for the first half of this year show an increase of 23,914 over the corresponding period of last year. For this year the total was 283,024 as compared with 259,110 for the first six months of 1927.

Unique Highway Test

SUFFIELD, CONN., July 13—Accurate costs on highway maintenance will be obtained by the Connecticut State Highway Department by reason of a test stretch of road three miles long to be built here, this stretch to embody 12 different types of road.

Street Now Handling Chevrolet

ATLANTA, July 16—A. S. Street, in the automobile business in Atlanta for several years as part owner of one of the largest Ford agencies in the Southeast, with Gordon L. Hight, Rome, Ga., has purchased the Daniel Chevrolet Co., at Rome, and is now actively identified with this company.

Motor Products Corp. Profits

For the five months ended May 31, Motor Products Corp. showed net profit of \$922,765 after interest, depreciation, federal taxes, etc., against \$318,421 for the corresponding period in 1927.

Carter Remodels Field Structure

Divides Country Into Four Sales and Three Service Districts

ST. LOUIS, MO., July 19—Although the Carter is manufactured as an equipment carburetor only, it being contrary to the policy of the makers to offer replacement units except for vehicles originally Carter equipped, the field force of the Parts and Service Division of the corporation has been enlarged considerably during the last few months.

An organization revision has been made, dividing the United States into four sales districts and three service zones. The sales districts are as follows: Eastern Sales District, Maine to Florida, inclusive, John J. Machacek manager, headquarters at the New York branch, Fisk Building; East Central District, Ohio, Michigan and Indiana to Alabama and Louisiana, including the states between these two groups, Lester Lowenstein, district manager, with headquarters at St. Louis; West Central District, Ralph C. Richards manager, traveling out of St. Louis, includes region bounded on the north by Montana, North Dakota, Minnesota, Wisconsin, and on the south by Texas; Western District, Carl H. Yackey manager, consists of the Pacific Coast and Rocky Mountain States. Mr. Yackey has headquarters at Los Angeles.

Eastern Service Zone, territory east of the Mississippi River, Frank L. Burgess, service engineer. Central Service Zone under McLaran Sawyer, service engineer, consists of the states between the Mississippi River and the Rocky Mountains. Service on the Pacific Coast is handled by Carl H. Yackey. The work of these service engineers is supplemented by that of several service mechanics.

This department is under the general supervision of V. J. Lowenstein, sales manager, the field men making contact with P. G. Sedley, sales promotion manager, located at the main office of the Carter Carburetor Corp. St. Louis.

Pierce-Arrow Cut Puts Prices at Lowest Mark

BUFFALO, July 16—Price reduction ranging as much as \$600 on its latest Series 81, were announced Saturday, July 14, by the Pierce-Arrow Motor Car Co. This move brings Pierce-Arrow to the lowest in history and is in accordance with Pierce-Arrow's new policy of increasing its sales volume by a material expansion of its market. Price changes in the individual models are as follows:

Seven-passenger enclosed drive limousine, reduced from \$3,550 to \$2,950; seven-passenger sedan, reduced from \$3,450 to \$2,850; convertible coupe, from \$3,450 to \$2,950; four-passenger coupe, from \$3,450 to \$2,950; five-passenger sedan, from \$3,350 to \$2,750; two-passenger coupe, from \$3,350 to \$2,750; four-passenger touring, from \$3,100 to \$2,700; runabout, from \$2,900 to \$2,600, and five-passenger club brougham, from \$2,750 to \$2,475.

Henry Named Distributor

HIGH POINT, N. C., July 17—This city, the furniture manufacturing center of the South, listed its first automobile distributor when the Henry Motor Sales Co. opened for business with the Studebaker line of automobiles in a large North Carolina territory.

Hoppe Territory Increased

CHARLOTTE, N. C., July 19—Ten towns in South Carolina have been added to the territory of the Hoppe Motors Corp., of Charlotte, distributor for Chrysler.

Monahan Motor Changes Name

WEST PALM BEACH, FLA., July 14—The name of the Monahan Motor Co., Inc., here has been changed to the Bellin-Murphy Motor Co., Inc.

Repossessions in Frisco Studied

Data Shows 72 Per Cent of Used Cars Under \$500 Come Back

SAN FRANCISCO, July 17—The Motor Car Dealers' Association of San Francisco has established, and maintains up to date, a complete list of repossessions made by the dealers of this city, beginning July 1, 1927. These repossessions include both new and used cars, and show that in the fiscal year ended June 30, 1928, the dealers had taken back in this manner 1432 cars. All dealers in the association are cooperating in this plan, and every time sale is carefully checked to see that the buyer is not a previous offender in this respect.

New-car repossessions made up 22 per cent of the total, and used cars, 78 per cent, while 1½ per cent showed more than one repossession from the same person. Of the new-car repossessions, 17 per cent were under \$500; 50 per cent between \$500 and \$1,000; 30 per cent between \$1,000 and \$2,000, and only 3 per cent above \$2,000.

Used-car repossessions showed that 72 per cent were under \$500; 25 per cent between \$500 and \$1,000, and 3 per cent between \$1,000 and \$2,000.

G.M.A.C. Shifts Allen

SAN FRANCISCO, July 18—M. S. Allen has been appointed manager of the San Francisco branch of the General Motors Acceptance Corp., coming here from five years' service as manager of the Chicago branch of the G.M.A.C.

Brake Headquarters Opens Store

BALTIMORE, July 13—Brake Headquarters has opened a master brake service and wheel aligning station at 1715 Maryland Ave. H. C. Miller is manager.

The Automotive Calendar

SHOWS

Automotive Equipment Association, Coliseum, Chicago, Oct. 22-27.

*Chicago, National, Coliseum, Jan. 26-Feb. 2.

Eastern States Exposition, Springfield, Mass., Sept. 16-22.

National Standard Parts Association, Cleveland Auditorium, Oct. 29-Nov. 3.

*New York, National, Grand Central Palace, Jan. 5-12.

Salon, Automobile Salon, Inc., Hotel Drake, Chicago, Jan. 26-Feb. 2.

Salon, Automobile Salon, Inc., Hotel Biltmore, Los Angeles, Feb. 9-16.

Salon, Automobile Salon, Inc., Hotel Commodore, New York, Dec. 2-8.

Salon, Automobile Salon, Inc., Palace Hotel, San Francisco, Feb. 23-March 2.

CONVENTIONS

Automotive Equipment Association, Coliseum, Chicago, Oct. 22-27.

National Association of Automobile Show and Association Managers, Drake Hotel, Chicago, July 26-27.

National Standard Parts Association, Hollenden Hotel, Cleveland, Oct. 29-Nov. 3.

World Motor Transport Congress, Rome, Sept. 25-29.

S.A.E.

Detroit, Book-Cadillac, Annual Meeting, Jan. 15-18.

Newark, Robert Treat Hotel, Transportation Meeting, Oct. 16-18.

New York, Annual Dinner, Hotel Astor, Jan. 10.

*Will have special shop equipment exhibit.

Timers from the House Organs

GEORGE T. HOOK
AT THE CONSOLE



IT'S always a pleasure to look into a crowd and find friendly faces there that you didn't expect to see. We experienced a feeling akin to that pleasure this morning when out of the flock of prominent names that find their way into the house organs of the industry we picked three that are engaged with us in what you might call a common cause. There was "Al" Brownell for instance. Beau Brownell is business manager of Commercial Car Journal and Operation and Maintenance, the twins of the Chilton Class Journal Co. that cover the truck field like a tent. He broke into Trindl Tips with a brilliantly conceived article on "What About the Truck-Fleet Market" that would do credit to an editor.

¶ In the Autocar Messenger we happened across two editorial planets. One was Donald Blanchard, editor of the two truck papers mentioned in the foregoing paragraph, and our own John Cleary, editorial generalissimo of your own Motor Age. Both contributed statistics on compensation of automobile salesmen that enabled Major, the Messenger's official spokesman, to reassure the boys on the firing line that, contrary to some unauthenticated opinions, had carrying is not a more remunerative vocation than selling automobiles.

The fourth kick we got out of the recently born Graham-Paige News Bulletin, which led off the July 4 issue with a reprint from the June 21 issue of MOTOR AGE. The article thus honored was entitled "Where There's a Mob There Are Prospects." The News Bulletin agrees.

¶ Do you let your help help you? Or is your business one of those one-man affairs that will die along with you? If you are inclined to do all the work yourself; if you vest your assistants with only a pseudo responsibility, this bit from the Tire Trade News of The Miller Rubber Co. may convince you that the big men let their help help:

"Have you ever considered the successful workings of a big office or a great plant? Or have you wondered at the success of any business greater than a one-man shop?

"Suppose the owner of a big institution picks a manager? He lets that manager earn his salary. He doesn't try to do everything himself. When the manager allocates the jobs, he delegates responsibility. The manager does not hold himself personally responsible for every piece of work but he makes various men responsible for such work. These men, having men under them, would not keep any of them long who required constant watching.

"Let your help help! When the help is given a job, do not putter around and assist or hinder the help. Make the help responsible. Nothing brings out the willing worker to a greater extent than a delegation of real responsibility. And nothing is better for your own peace of mind than knowing that your help is being performed by willing, responsible hands."

How would you like to make \$500 more? An article in Chrysler Salescraft asks that question of automobile salesmen and gives an answer that epitomizes smart salesmanship. Here's the answer in full:

¶ Many salesmen do their high-pressure selling on the Used Car Appraiser or on the house, trying to sell them on taking in the trade-in at the prospect's figure instead of trying to sell the prospect on the actual value of the used car. The salesman who does this is not only cutting off his own nose but he is taking a whole chunk out of the side of the jaw of the boss.

¶ Suppose you force a trade through on a car that amounts to a \$300 overallowance and your commission is 5 per cent. You are cutting yourself out of \$15—and you are causing the house to take a loss of \$285. Then suppose you sell 30 or 35 cars a year—you are losing from \$400 to \$500 of good old cold cash that might just as well have been yours if you had concentrated your selling on the prospect rather than selling the house a bunch of junk at a big loss.

¶ Try it this way, if the Used Car Appraiser says the car is worth \$800 try to sell the prospect on getting only \$700 instead of trying to get the Used Car Appraiser to take it at \$1,000 or even higher.

¶ When you make money for the house you make money for yourself and it's a two-way road. Sell the new car and don't help the prospect sell the house his old car.

With parting emphasis on the last sentence.

1908 Studebaker Still Percolates

Prize Contest Uncovers Many Veterans Still Giving Service

SOUTH BEND, IND., July 16—Prize winners in Studebaker's veteran car contest, held to determine the oldest Studebaker car still in active service, have just been announced. The oldest machine reported is a 1908 Studebaker-Garford touring car, owned by the Spraggins & Nelson Garage in Oakland, Calif. The car still has its original finish and, according to the owners, still runs perfectly in spite of nearly 20 years of service. Big brass headlights and a high tonneau body equipped with a primitive version of the "California top" emphasize the progress made in body design since this was introduced. The second prize went to a 1909 Studebaker touring car which still serves as a snappy "collegiate" model for Robert Henninger and Francis Winant, students at Westwood, New Jersey.

Three other prizes were awarded to owners of 1909 cars, all of which are serving after well over 100,000 miles of travel. One of these old timers, owned by E. N. Case of San Leon, Texas, has been driven a total of 300,000 miles and is still going strong. The other 1909 models are owned by W. J. Brockner, Bergenfield, New Jersey, and S. Mortensen, Verdi, Nevada. The latter reports that his old veteran will still do 50 miles an hour.

W. F. Kneip Expands

BALTIMORE, MD., July 14—Kneip Oldsmobile Co. has been made Oldsmobile dealer. The new firm is headed by Walter F. Kneip, president of Franklin Motor Car Co., Franklin agent.

Chevrolet Adds Foundry

DETROIT, July 7—Chevrolet Motor Co. has let contracts for a new unit at Saginaw to cost approximately \$4,000,000, of which about \$700,000 will be spent for equipment.

Appoints 23 New Ones

SAN FRANCISCO, July 9—The Pacific Coast Durant factory announces the appointment of 23 new dealers.

Low Test Gas Tester

WASHINGTON, July 9—A new meter, which measures automobile motor speed 25 times a second, is enabling the Bureau of Standards to discover the degree to which low test gasoline will permit acceleration, the Department of Commerce announces.

Maring Adds Another Building

BIRMINGHAM, ALA., July 14—Don Maring, president of Crawford's Auto Shop, Inc., Ford agent, has started work on a new building.

General Motors Sales Still High

June Is Third Consecutive Month in Which Totals Top 200,000

NEW YORK, June 13—For the third consecutive month, sales of General Motors cars to consumers topped the 200,000 mark when June showed sales of 206,259 cars. This compares with 224,094 in May and 209,367 in April. These are the only months in which sales have topped the 200,000 mark. These sales also compare with 159,701 in June of last year, a gain of 29.2 per cent.

The following tabulation shows monthly sales of General Motors cars by dealers to ultimate consumers:

Dealers Sales to Users

	1928	1927
Jan.	107,278	81,010
Feb.	132,029	102,025
Mar.	183,706	146,275
Apr.	209,367	180,106
May	224,094	171,364
June	206,239	159,701

Highway Trailer Assembly

MINNEAPOLIS, July 17—Highway Trailer Co. of Edgerton, Wis., has established an assembly plant here. N. C. R. Jahn is manager.

Flyer Learns to Drive Car

HARTFORD, CONN., July 16—Fifteen hundred hours of flying practically every type of airplane, yet, until recently, unable to drive a motor car, is the unusual case of A. Lewis

Distribution Chief



Charles W. Bloom

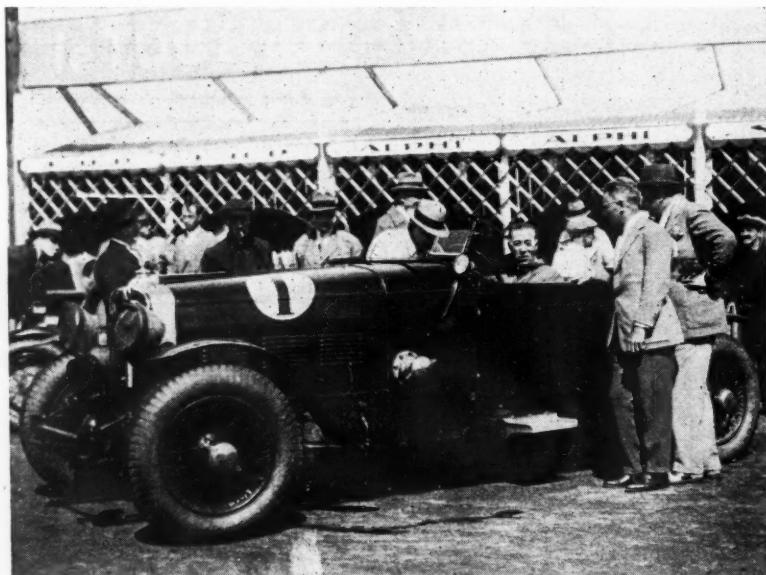
You read of his appointment as director of distribution of De Soto in last week's Motor Age. He's an important addition to the Chrysler family. Congratulations.

McCain, test pilot for the Pratt & Whitney Aircraft Co.

McCain worked his way through college by piloting trolley cars.

Genuine Parts Co. Formed

DAYTON, OHIO, June 16—Genuine Parts Co., a new parts concern distributing genuine Continental parts, Borg & Beck clutches, Brown-Lipe clutches, and complete replacement parts, has been opened here by W. C. Schultz and R. C. Walters.



Here's the Record Breaker

This Stutz Blackhawk smashed all records in the Rudge Whitworth 24-hour road race recently held at Le Mans, near Paris.

Tire Insurance Tried in Boston

Novel Plan Does Away With Guarantee; Slightly Adds to Cost

BOSTON, July 9—The California plan of insurance for tires is just making its way into Boston and some of the tire dealers are recommending it to their patrons. Under this plan the tires are sold with a plus of \$1 per tire for the insurance covering one year against blowouts, imperfections, cuts, stone bruises, etc., thereby eliminating the arguments between dealer and buyer. Only first class tires are accepted under this insurance plan.

Auburn Orders Away Ahead

AUBURN, IND., July 16—Auburn Automobile Co. shipped 1500 cars during June, and the production schedule for July is 1700. Orders on phaetons, sedans and cabriolets are far ahead of production.

Production of two new models will be under way on Aug. 1, the seven-passenger sedan and the Victoria coupe. The seven-passenger sedan will be built on the 88 and 115 chassis and the Victoria will be built on all three chassis, the 76, 88 and 115.

Chrysler Calls Preferred

NEW YORK, July 14—Chrysler Corp. has called preferred Class A stock for redemption Aug. 6. The stock will be redeemed according to provisions of the certificate of incorporation at \$115 a share and accrued dividends. Dividends will cease to accrue on that date. Holders of such shares are to present them on Aug. 6 at the principal office of the Central Union Trust Co. of New York and will receive checks for the redemption price.

General Contract Corp. Sold

NEW YORK, July 11—General Contract Purchase Corp., instalment financing subsidiary of General Electric Co., has been sold by the latter to the Industrial Acceptance Corp.

55 Millions for California Roads

SACRAMENTO, July 14—With the preparation of the 1929-30 California highway budget under way, Bert B. Meek, director of the state department of public works, has announced that between \$50,000,000 and \$55,000,000 will be available for highway construction and maintenance purposes in the state during the next biennium.

USL-Auto-Lite Balance Sheet

USL Battery Corp. and the Electric Auto-Lite Co., recently merged, report a pro forma balance sheet as of March 31 showing total assets of \$19,538,475, with a surplus of \$5,243,450. Current assets are \$8,317,508, with current liabilities at \$3,716,901.

Wolverine Adds a Four-Door Sedan

Improved Appearance of 2T Line Gained by Slight Changes

LANSING, July 13—The addition of a five-passenger, four-door sedan to replace the landau sedan features the announcement of the 1929 Reo Wolverine. A narrower radiator, more gracefully rounded hood and deep color panels below the door windows add to the improved appearance. Bumpers front and rear and hydraulic shock absorbers on the front springs are included in the equipment.

Hupp Adds 66 Dealers

DETROIT, July 13—Hupp Motor Corp signed contracts with 66 dealers in all parts of the country, during the month of June. Dealers were located in 28 states and one Canadian province.

Gas-Petroleum Output Up

WASHINGTON, July 13—Petroleum production in the United States during May, 1928, averaged 2,426,000 barrels a day, totaling 75,218,000 barrels for the month, an increase of 22,000 barrels daily over April, 1928, according to the Department of Commerce. Gasoline production was 994,000 barrels a day, an increase daily of 16,000 barrels.

Dodge Sales Still Gaining

DETROIT, July 16—Sales of Dodge Brothers passenger cars to consumers in domestic and foreign territories from the first of the year to the week ending June 23 show a gain of 20.2 per cent over the corresponding period of 1927. A gain of 67 per cent in retail sales was registered for the week ending June 23, compared to the corresponding week in 1927.

Motor Conference to Meet

BALTIMORE, July 13—The Eastern Conference of Motor Vehicle Commissioners, representing 18 states, the District of Columbia and two Canadian provinces, will be held in Maryland, July 20 and 21. E. Austin Baughman, Maryland State Motor Vehicle Commissioner, is president of the conference.

G.M. Export Adds Unit

NEW YORK, July 16—The establishment of General Motors Polsce SP Z.O.O., at Warsaw, Poland, is announced by the General Motors Export Co., as the latest addition to the chain of 21 subsidiary operations of the company. W. L. Pavlovski has been named managing director of the new operation.

Harry Hunt Killed

TROY, OHIO, July 16—Harry Hunt, 36, proprietor of the Miami Auto Parts Co., was killed when his automobile struck a culvert on the Dixie highway near Sidney.

Jest—a Bit Cynical

By Sherman Swift

I EXPECT to be wealthy by a week from Tuesday. Then I shan't have to work—any more than I have had to for the past few years, or since the time I learned how much easier it is to push a typewriter than a wheelbarrow. The idea is that I'm going into the gas-saving business. It seems that my name has been given to a firm that makes the Little Jeebo Gas-Saver and I am to have the agency for the whole state of Pennsylvania, provided I take advantage of the offer within a period of 30 days from the date at the top of the letter.

I guess this is a pretty good arrangement; the man said so and the literature states that "Jones of Chicago sold 67 in two hours," so I imagine it's one of the times they speak about when opportunity knocks; naturally I'm not going to refuse to listen, "and be sorry all my life," as the letter says.

The device itself is probably all that is claimed for it. To my untrained eye it looks like a cross between a soap-shaker and a potato peeler, but you never can tell. From the evidence of the circular it seems that it really accomplishes wonders. "My 1913 Bullet runs like a new car since installing Little Jeebo," says Lee of Milwaukee—all the testimonials are from large cities, so that's a help; and "Since installing the Little Jeebo I would not sell it for \$50 if I could not get another," says Myers of New York.

There are numerous testimonials of this kind, all of them in very high praise of the Little Jeebo, one man even going so far as to state that he uses one on a five-ton truck and gets 40 miles to the gallon, I think it was. So there's nothing wrong with the product and with a good product anyone will admit that the battle is half won.

The entire layout is good. Take the selling plan, for instance. This, it seems, was thought out by a genius of the name of Charles Ponzil. Actually I do not have to sell a thing, except one Little Jeebo to each of 10 friends. I get my commission on these 10 in advance, when I send the \$20 for the 10 savers. My sole investment is the \$20 for which I receive in return \$40 from the 10 friends to which I sell the device. That is a hundred per cent net profit, which I suppose is about as good as most anybody does these days.

Having sold—or as you might say, distributed—these 10, my work is done. That's the good part of the plan and the part that shows the cleverness of this Mr. Ponzil, if I recall the name rightly. My friends and their friends do the rest of the work, and I collect on everything they sell in my territory.

It's like this. The 10 friends each get 10 of these gas-savers. They sell them in turn to 10 friends. I get my rake-off. Then the 10 they have sold them to sell to 10 more friends—and still I get a rake-off. That's a thousand sales. But each of these thousand buyers sells 10 each to his friends and right there I get a commission on 10,000. These 10,000 friends in turn sell 10 each to their 10 friends and my commissions are figured from the sum of 100,000 Little Jeebo Gas-Savers. The 100,000 then sell 10 each to—(at this point Mr. Swift became violent and we had to put him in a strait-jacket).—The publishers.)

A letter from Hollister Moore will just fill the remaining space: I like your game of slogans as told in "Jest—A Bit Cynical" of June 14—sounds good and I'm going to try it one of these days. It made me think of "Questions and Answers" and of some I asked and got answered when calling on a most attractive young lady not so awfully long ago. We were talking about driving—she has driven a machine for years—and I made the claim that she didn't know anything about the car except how to operate it. The response, of course, was, "I do so!"

I then asked her the following questions. Read the answers, then tell me, was I right, or was I wrong? The first: "What is the carburetor?" The answer: "It's the thing that you get carbon in." The second: "What is the crankcase?" "The case you put the crank handle in when you're not using it." "Very good," I said. "Now, what is the connecting rod?" "That is the rod that connects the engine with the motor," she replied.

"There is one thing I do know about the car," she said when I laughed, "and that is that the generator is the thing you put water in!" And an air filter would be the ventilator. Sincerely, Hollister Moore.

Traffic Meeting Adopts Ordinance

Model Ruling to be Broadcast Soon; Hoover Opens Session

NEW YORK, July 13—The Committee on Uniform Municipal Traffic Ordinances and Regulations, which met at Washington the last three days of last week, adopted a definite model ordinance which will be printed during the next 30 days and sent to cities throughout the country.

Representing the industry were William G. Metzger, vice-president Federal Motor Truck Co., who presided; David C. Fenner, chairman Motor Vehicle Conference Committee of the National Automobile Chamber of Commerce; J. Allen Davis of the Automobile Club of Southern California; Colonel A. B. Barber; Fred H. Caley of the Cleveland Automobile Club; W. W. Cloud, president of the Yellow Cab Co. of Baltimore; Howard Brown, attorney for the Detroit Automobile Club; Sidney J. Williams, Public Safety Division of the National Safety Council; S. R. Heller, Yellow Cab Co. of Norfolk, Va.; and John C. Long of the N.A.C.C.

Herbert Hoover opened the session and at the close of the conference Mr. Cloud, who announced himself as a Democrat in politics, moved that a vote of thanks be extended to Mr. Hoover for his service in this work. The motion was unanimously adopted.

Laminated Glass Plant

TOLEDO, July 16—First unit of a new laminated glass plant here is now being started by the Libby-Owens Sheet Glass Co. It will have a capacity for 10,000,000 sq. ft. of non-shatter glass annually. James C. Blair is president of the company.

The company has had large automotive contracts and for some months has been furnishing considerable glass for the Ford Motor Co.

Hiscock Takes New Job

PHILADELPHIA, July 16—John H. Hiscock has joined Geare, Marston & Pilling, Inc., Philadelphia Advertising Agency as account executive. He was with the Eugene McGuckin Co., also of Philadelphia, for nearly 13 years, and prior to that was conspicuously identified with many large merchandising successes in the automotive, accessory and hardware fields.

Ebaugh Service Manager

BALTIMORE, MD., July 17—Bert Ebaugh has been made service manager of Peerless Motor Car Co., of Baltimore.

Eaton Axle & Spring Net

Eaton Axle & Spring Co. reports net profit for the quarter ended June 30 as \$445,634 before taxes. This is equiv-



New Home of Knoxville Motors

THREE thousand people attended the opening of the new home of the Knoxville Motor Co., Nash dealer in Knoxville, Tenn. The concern is headed by A. J. Taylor, who has held the Nash franchise since the organization of The Nash Motors Company

alent to \$1.82 a share and compares with \$315,320, or \$1.26 a share, in the previous quarter and with \$304,492, or \$1.22 a share, in the June quarter last year.

Mason Receiver Named

CLEVELAND, July 16—P. W. Eigener has been appointed receiver for the Mason Tire & Rubber Co. on petition of J. B. Ricker of Kent, Ohio, who alleges the company has no tangible working capital. The petition gives current assets of \$1,500,000 and current liabilities of \$600,000.

Chevrolet Appoints Agents

ATLANTA, July 16—The Chevrolet Motor Co. announces appointment of James Chevrolet Co., a new concern at Greenville, S. C., and Harrison Chevrolet Co., a new company at Marianna, Florida.

Kilgore-Alexander Adds Oakland

SPARTANBURG, S. C., July 17—Kilgore-Alexander Motor Co. has been appointed Oakland-Pontiac distributor. D. D. Alexander is president, and B. M. Kilgore, secretary and treasurer.

"Air" Chamber Expands

NEW YORK, July 17—The Aero-nautical Chamber of Commerce reports that its activities have increased to such an extent that it has had to move to larger space on the seventh floor of the building it formerly occupied at 300 Madison Avenue.

Oil Firms Change Hands

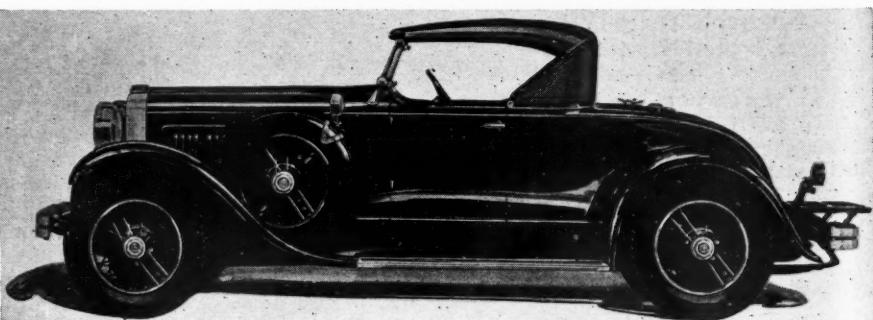
SAN FRANCISCO, July 14—Rich-field Oil Co. has purchased the Pan-American Western Petroleum Co. and the Petroleum Securities Co. from Edward L. Doheny.

New Seiberling Plant

SAN FRANCISCO, July 16—Seiberling Rubber Co. will establish a new factory on the Pacific Coast, probably at San Francisco or Oakland.

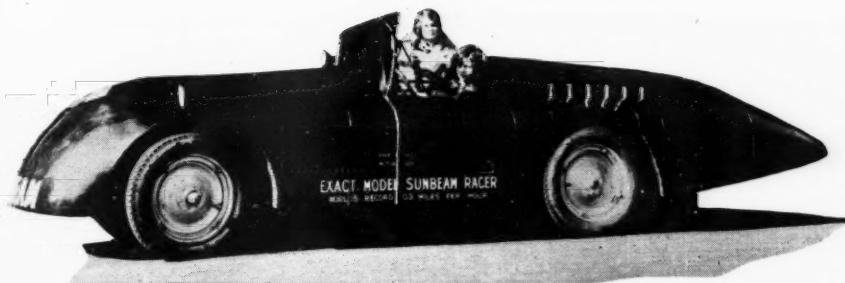
Nash Motor Company Dividend

Nash Motor Co. reports that for the second quarter of its 1928 fiscal year, covering March, April and May, net income amounted to \$2,768,473. The regular quarterly dividend of \$1 per share was declared, and an extra dividend of \$0.50 per share, payable Aug. 1 to stockholders of record July 20.



New Victory Six Sport Roadster

Attractive color combination with sweeping graceful lines are combined in the Victory Six roadster recently introduced by Dodge Brothers, Inc. The two spare tires mounted on wire wheels are carried in walled front fenders.



An Oldsmobile Sunbeam

CITIZENS of Atlanta, Ga., took to the sidewalks when they saw the car pictured above drive down their main thoroughfares. The car is a replica of Major Segrave's Sunbeam, which formerly held the world's speed record for the mile. The body was constructed on an Oldsmobile Six chassis to advertise a toy Sunbeam car.

Campbell-Ewald Opens Tenth Branch Office

LANSING, MICH., July 17—The Campbell-Ewald Co. has opened its tenth branch office at Lansing, Mich., in the new Mutual Building, according to an announcement of H. T. Ewald, president. M. A. Hollinshead, who has been with this organization as an account executive for more than six years, will have charge of the office.

Six Durant Dealers Named

SEATTLE, July 18—The Motor Distributing Co. now is Durant distributor in western Washington. Among the new dealers appointed by the organization are Barros Motor Co., Port Angeles, Wash.; Axel Johnson, Burlington, Wash.; Valley Motor Co., Auburn, Wash.; Central Motors, South Tacoma, Wash.; Jolly Motors, Renton, Wash.; Schober & Wait, West Seattle, Wash.

Olds Has Show on Wheels

SAN FRANCISCO, July 16—with all the new models, each mounted on a truck, in the caravan, the Oldsmobile company has sent a "moving automobile show" on tour of every state on the Pacific slope. Paul J. Feeley, special representative of the Oldsmobile factory, and M. N. Reed, wholesale representative of the San Francisco branch, are in charge.

Lends Truck to Promote Sales

SAN FRANCISCO, July 17—General Motors Truck Co. branches, here and in Oakland, announce the free loan of a truck for a day to any responsible and regular user of trucks, as demonstration and sales exhibit, according to J. J. Davis, general manager of the G.M.T. company in this territory. "We believe the truck itself will be the best salesman," Davis said.

Decatur Dealers to Move

DECATUR, ILL., July 16—V. M. Elmore & Sons, Studebaker dealer, has purchased the Macon County Farm Bureau Building and upon the addition of two more stories to the present one-

story structure and extensive remodeling, will move from its present quarters at 2323 South Main St., about Nov. 1. W. C. Starr, Inc., Overland, Willys-Knight and Whippet dealer, will occupy the present Elmore quarters.

Blaney Made Service Chief

BINGHAMTON, N. Y., July 16—F. R. Bump, vice-president of the Larabee Deyo Motor Truck Co., Inc., announces that L. H. Blaney has been appointed factory service manager. For the last two years Mr. Blaney has been assistant general manager of the Larabee factory branch at Albany. He has been in the truck business since 1913.

Lupton to Build in Chicago

CHICAGO, July 19—David Lupton's Sons Co., of Philadelphia, has contracted with the Clearing Industrial District to immediately erect the first unit of its new Chicago manufacturing plant and warehouse. The plans contemplate the development of a Lupton plant at Chicago covering approximately six and one-half acres at Clearing.

Many Seek De Soto Line

CHARLOTTE, N. C., July 18—Inquiries regarding agencies for the prospective De Soto Six line of automobiles, which is expected to be placed on the market soon by a Chrysler subsidiary, are so numerous in this territory that three field men attached to the corporation's regional sales office here are taxed to visit inquirers promptly.

L. C. Smith Expands

CHICAGO, July 16—L. C. Smith Bearings Co. has purchased the property at 2633-35 S. Michigan Ave. for \$100,000. The machine shop and tool and equipment department will be enlarged when the company occupies the new building.

Adams Picks Pickens

PICKENS, S. C., July 18—J. E. Adams has opened a garage, vulcanizing plant and tire store in the new Fuller Building.

Rolling House to Tour the World

Philadelphia Home on Wheels Makes Fifty Miles An Hour

NEW YORK, July 14—Mr. and Mrs. George M. Miller, lately of Philadelphia, and their airedale pup, Rex, will shortly roll into this city in their new "home on wheels" in which they expect to live for the next four years while making a tour of the world. The "house," which is mounted on a GMC truck chassis and trailer, has done better than 50 miles an hour on test, and this speed, according to Mr. Miller, is fast enough for a quiet home life on wheels.

Durants for Border Patrol

NEW YORK, July 16—The United States immigration service recently purchased eight Durant fours for Canadian Border Patrol, according to announcement just made by H. J. Shorter, assistant sales manager of the Durant Motor Co. of New Jersey. Mr. Shorter regards this as a particularly fine tribute to the Durant cars, inasmuch as the Border Patrol service requires a vast amount of driving over frequently bad stretches.

May Stock Airplane Tires

BOSTON, July 16—Some of the progressive tire dealers here are beginning to take a close interest in aviation with a view of the possibilities of stocking airplane tires in the near future.

Gibbs Doubles Capital

BAY CITY, MICH., July 13—Gibbs Welding Machine Co., manufacturer of welders, has increased capital stock by \$125,000, making a total of \$250,000.

Minnesota Dealers Meet

PEQUOT, MINN., July 13—Minnesota Motor Trades Association is holding its summer outing on Pelican Lake today and tomorrow. A. P. Krost of Mankato is chairman of the committee arranging gun trap shooting and golf. J. M. Van Riper of Winona is chairman of arrangements. The membership is 800.

Excise Tax Totals

WASHINGTON, July 12—A total of \$6,172,923.23 in excise taxes was collected from the automobile purchasers of the country during May of this year, compared with \$5,435,101.21 collected in May of last year.

May, Inc., Adds to Holdings

NEWARK, N. J., July 13—D. W. May, Inc., distributor of tires, batteries and radios, has rounded out his holdings by the purchase of four properties, including the one he has occupied as tenant.

John Cleary Says—

BEING preached at is distasteful to most of us, and being preached at is what salesmen these days ain't getting nothing else but.

One of them asked me the other day what I thought about a plea for more productive hours, based on a survey by the Dartnell Corporation on the time-efficiency of the salesmen of a national concern operating high-grade men.

The survey, as reported by the Peerless Co-Operator, offered the following startling figures:—

Of the 8760 hours in a year, 5110 are spent for sleep, meals and recreation; 1040 Saturday and Sunday hours are non-productive; 210 holiday and vacation hours are non-productive; 100 are wasted during idle days; 920 are lost because of a 6-hour day idea; 460 are spent between calls; 920 are actually spent with prospects.

I answered my automobile salesman friend by getting out my stub of pencil to analyze these figures. Here is what I found:

The time allowed for meals, sleep and recreation are figured on a basis of 14 hours per day. Deducting these, the salesmen of this national concern have 365 days of 10 hours each. The company evidently allows a Saturday full holiday throughout the year. Eliminating the Saturdays and Sundays there remain 261 working days of 10 hours each. Since the Saturdays and Sundays are not working days, then a regulation two-weeks' vacation would mean 10 working days. The report shows 21 holidays and vacation days, so this philanthropic establishment must grant 11 extra holidays to its salesmen during

the year. This leaves 240 working days of 10 hours each.

In other words, the maximum time that this company asks its salesmen to devote to selling its product is 2400 hours in a year.

If the salesmen are spending 920 of those hours with prospects, that means they are engaged in actual selling during 38 per cent of their prescribed working hours.

And if they are spending 460 hours between calls, they are engaged in an essential part of the selling process during another 19 per cent of the working hours mapped out for them by the firm.

In other words, these salesmen are giving 57 per cent of ten hours to the work of selling—every day the concern asks them to work.

And if this work requirement were reduced to the more reasonable eight hours, it will be found that they are devoting nearly 72 per cent of an 8-hour working day to their task of selling.

I know a sales manager who would kiss a salesman for much less than that.

The irony of this thing is that the figures are advanced to indicate the non-productiveness of salesmen.

Nine-hundred and twenty hours out of 7680 sounds terrible, but 1380 out of 2400—or a more reasonable 1920—is something else again.

The trouble here is not with the salesmen, but with the company that employs them. Let us have more productive hours by all means, but let us first insist that our salesmen work a sufficient number of days each year.

Alps, Gals, Gobs and Cops



These fair representatives of the AC Spark Plug Co. were the committee that felicitated Miss Amelia Earhart, of Boston, upon her courageous flight across the big drink. The girls are seated on what is believed to be the world's largest spark plug, Barney Google's entry being scratched.



Auf dem Fluelapass bei Davos, which is the Swiss way of explaining that the view above is that of the Fluela Pass, Grisons, Switzerland, connecting Davos with Sus in the Lower Engadine. If you are finding it difficult to decide where to spend your vacation, a look at this Alpine scene may help you choose a mountainous spot where tourists are rare and the atmosphere rarer.



Sailors are supposed to have a sweetheart in every port. Some have—and perhaps wish they hadn't. Others haven't and should be glad of it. But Admiral Henry A. Wiley, commander-in-chief of the Atlantic and Pacific fleets of the U. S. Navy, has made certain that he has a Buick at his disposal in every port. The Buick you see being hauled up over the side has been the admiral's sweet performer for two years, and as his chauffeur puts it: "It's a credit to the Navy."



"They get their men" is a phrase that long has been associated with the Royal Northwest Mounted Police. If they earned this reputation on horses, we volunteer the prediction that they'll do even better in automobiles. Studebakers are the standby of the two romantic figures pictured above.

A Paint Shop Beautifies Used Cars *and the Balance Sheet*

Syracuse Dealer Paints in a Used-Car Profit by Doing the Work He Had Previously Farmed Out

ACTUAL experience has taught J. B. Rusterholtz, president of the Overland-Knight Co., Syracuse, N. Y., that painting and refinishing used cars is an absolute necessity for quick turnover.

He has seen used cars that were supposed to have a good finish stand in his display for a month or six weeks with no takers, and he has seen these very same cars sell like the proverbial hotcakes after they had been refinished with a pleasing color combination.

Around Syracuse, Mr. Rusterholtz is known as an automobile merchant who does not overlook any "bets." A good merchandising idea is adopted and put into effect immediately. The reason why he is out in front, why his business is showing a profit today, and for some time past, is that he is continually using methods that cut overhead and add to the profit.

An example is his showing in used cars for 1927. Last year he sold approximately 400 used cars at a profit of \$4,000. That means a profit of \$10 per car, which any automobile merchant will tell you is mighty good. The point that stands out in his merchandising of used cars is the importance that his paint shop has played in its operation. As he says, "I am confident that we would have sold 100 fewer used cars, and would have shown a loss in place of a profit, had we not had this sales assistance last year."

By Luke Hayes

What this means can be seen when it is known that Mr. Rusterholtz sells one new car for every three used cars. So if he had sold 100 fewer used cars, his new-car sales would have dropped off to the tune of 33 cars.

Going back to the paint shop we find that Mr. Rusterholtz used to send his used cars to local paint shops. He specified bright color combinations because he knew their appeal and that they were responsible for the quick turnover of his stock. He knew that black, somber tones retarded the sale of a car that was so painted.

But sending the used cars to local painters was a costly proposition. It cost him \$35 for touring cars; \$50 for small sedans; \$75 for the larger closed cars. It also had a number of disadvantages, as Mr. Rusterholtz soon learned. Some of them were:

(1) The high cost. (2) Poor service. (3) Not getting the exact colors specified. (4) Delay and expense in getting the cars to and from the painters. (5) Took cars temporarily off the market. (6) Time required to paint each car was too long.

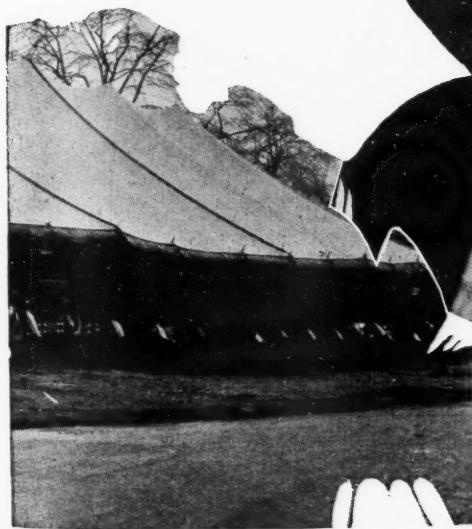
After sending out a number of cars, Mr. Rusterholtz began to investigate the possibilities of conduct-





Getting a car ready for re-sale in the paint shop of Overland-Knight Motors, Inc., Syracuse. Cars like this can be refinished and repainted for \$15

Left: A rear view of the Overland-Knight Motors' used-car tent



J. B. Rutherford, president, Overland-Knight Motors, Inc., Syracuse, N. Y.

ing his own paint shop. Being a practical business man he reasoned that the painters were making a profit on the jobs that he sent them, or else they would not be doing the work. More thought and more time spent on this little research further showed him that the painters were making more money than he as an automobile merchant. He arrived at the conclusion that the best thing for him was to operate his own paint shop. Let him tell the story:

"An old barn, adjacent to our main building, was selected as the paint shop. We selected this place for two reasons: First, it would increase our insurance rates on the entire main building were we to use lacquer in the building, and secondly, by using the barn we have additional space.

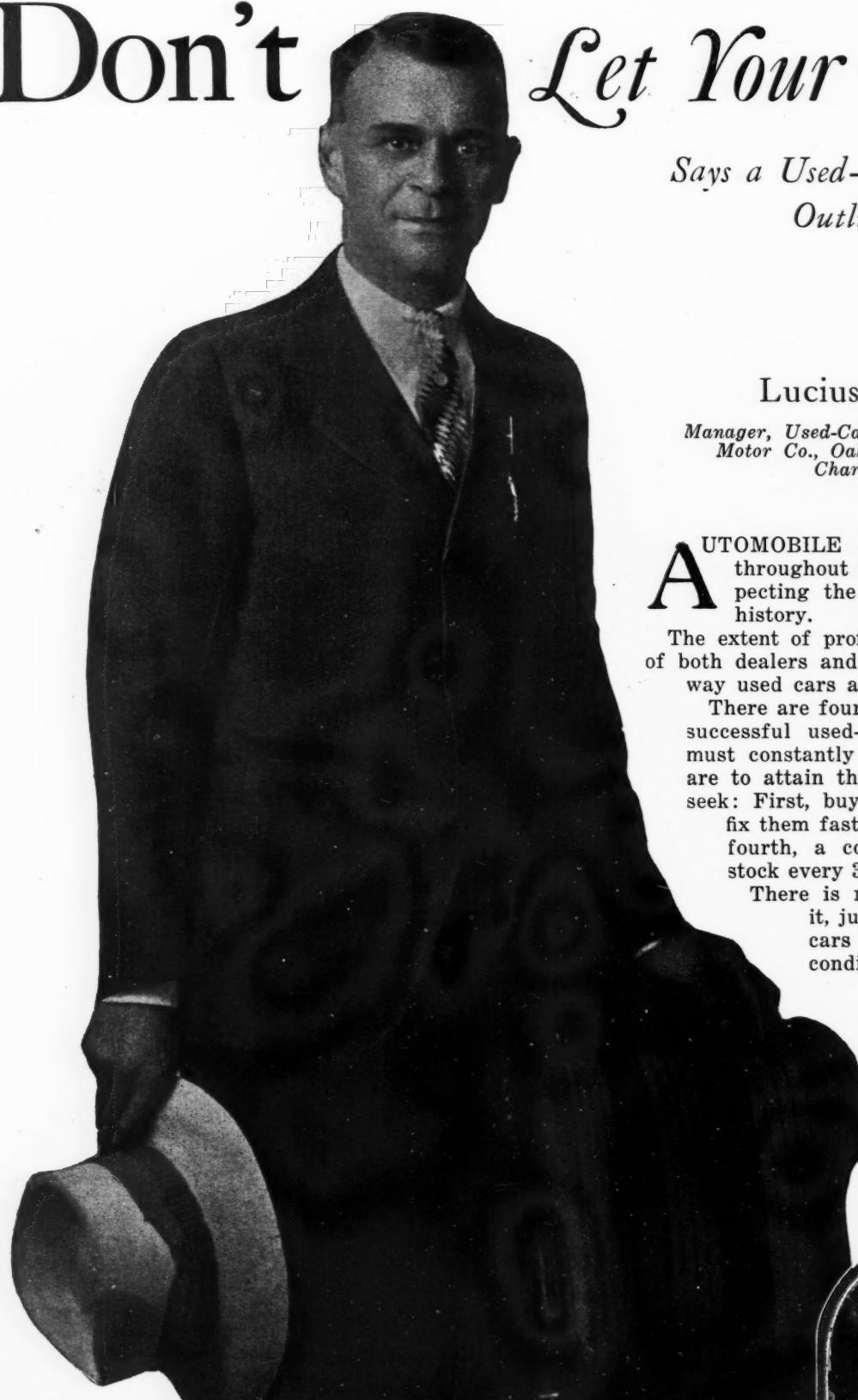
"To those dealers who do not operate their own paint shop let me state that it is not necessary to have an elaborate building in which to house the paint shop. In fact anything that will give protection and can have a little heat in the winter can be used.

"Our paint shop site selected, we advertised for an experienced painter, and of course had many applicants. From the group we picked the best man we could. We started by using paint and varnish and learned that we could do the work for two-thirds the cost of sending it out.

"Next we experimented with different kinds of paint and finally found that the dull finish more nearly matched the lacquer and was less expensive to use, besides giving better satisfaction. We learned that it

(Turn to page 34, please)

Don't Let Your Used



*Lucius W. Baker,
used-car manager
of Perrault Motor
Co., Charlotte
N. C.*

*Says a Used-Car Manager Who
Outlined Ideas, If Put to
Car Out of the*

By
Lucius W. Baker

*Manager, Used-Car Department, Perrault
Motor Co., Oakland-Pontiac Dealer,
Charlotte, N. C.*

AUTOMOBILE dealers and salesmen throughout the entire country are expecting the largest new-car sales in history.

The extent of profits and even the existence of both dealers and salesmen hinge upon the way used cars are merchandised.

There are four things in connection with successful used-car merchandising which must constantly be borne in mind if you are to attain the goal of profits that you seek: First, buy used cars right; second, fix them fast; third, sell them quickly; fourth, a complete turnover of your stock every 30 days.

There is nothing complicated about it, just a matter of buying used cars right, taking steps to recondition them before the sun sets the day they are received; display them, advertise them and by the right amount of sales effort and proper pricing, move them quickly.

If you find that you have bought one too



Cars I'll Use You!

Speaks Frankly and Asserts His Work, Will Keep the Used Problem Class

high, cut the price to what it should be and move it; do not hold on and hope to get out on it. The quicker you take your loss the less it will be.

If you get a sticker in your stock find out the cause of it. Sometimes it is because the salesmen do not like a certain make of car and think that they cannot sell it. In such a case assign it to one man for a week. In most instances it will sell.

Some large dealers and most all small ones expect the new-car salesmen to move the used cars that are traded in, and some dealers even limit their salesmen to the number of trade-ins that they can have on hand at any one time, which plainly indicates that there is something wrong with their methods.

There are two used-car prospects to every new-car prospect, and if the dealer will take in cars for which there is a popular demand and leave the junk for the junk dealer, he will never have cause to complain about business conditions, or be forced to stop trading until he can sell some used cars.

We sell 500 new cars a year and 1000 used ones. We never have more than 35 used cars on hand at any one time, and never have to turn business away from our door because we are loaded on used cars.

We have six new and four used-car salesmen. The new-car men are asked to and encouraged in selling used cars but are not forced to do so, and are not allowed to neglect a new for a used-car sale. The used-car men are not allowed to sell new cars because of confusion among the men and neglect of used cars.

The number of new-car sales depends entirely on our ability to handle the trade-ins. The used car is

taken in primarily to make the sale of the new one and not for any profit that we hope to get out of it, and we only try to get list price for the new car, plus any necessary repairs to the used one. All rent, commissions and salaries are charged to the new car. If we try to sell used cars at a profit it will cut our volume of new-car business to the extent that it is unprofitable because of a congestion in the used-car department.

Any dealer who tries to make a profit on his used cars does so at the expense of new-car sales where his profit is more than twice the amount that he can hope to get out of a used car.

If a car is traded in and sold for the same price within a week the dealer is better off than if it is held for three weeks and sold for a gross profit of 10 per cent.

Many dealers spend thousands of dollars each year for new-car salesrooms, shop space and equipment (all very necessary) and stick their used cars in the basement or some vacant lot with no one to look after their appearance or mechanical condition. And if the used-car department asks for a second-hand desk or a telephone or a new tire it is accused of being extravagant or lacking in sales ability because it is unable to sell them "as is."

Any dealer who hopes to make a success as an automobile merchant must turn his attention to his used-car department. He must put a man in charge who knows and has had sufficient experience, supply him with capable help to keep them in mechanical condition and salable appearance, and furnish him experienced salesmen who can demonstrate them intelligently.

The day has arrived when we must sell used cars according to the need of the buyer and his ability to pay. The \$20-a-week man buys and is just as able

(Turn to page 26, please)

Sales headquarters and adjoining used-car lot of Perrault Motor Co., Oakland-Pontiac dealer of Charlotte, N. C.



He Learned His Lesson in the Garage Business

If you ask Ed Mathis, of the Mathis Motor Corp., Atlantic City, N. J., what he thinks is the best preparation for a career as a successful automobile dealer, he will probably tell you to operate a storage garage for a few years. In seven years Mathis built up a business selling Studebaker and Erskine cars from nothing to more than 400 cars a year—and he's still growing.

In 1921, a year after he signed the Studebaker franchise, he sold 25 cars. In 1927 he sold 425 cars and 648 used cars. He is one of the most successful automobile merchants along the Eastern seaboard, with a \$90,000 salesroom in Pleasantville, branches in Egg Harbor and Tuckerton, and a sub-dealer in Hammonton, in addition to two warehouses, a big service station and his used car store, used car lot and new car salesroom in Atlantic City proper.

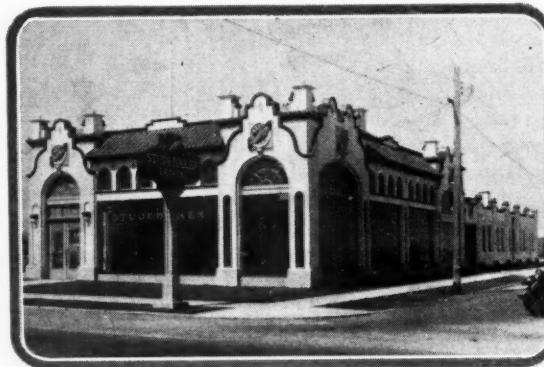
How did he get that way?

"For several years I ran the biggest garage in Atlantic City," Mathis will tell you. "The garage business gave me an opportunity to study the automobile owner—and I learned a lot. What I learned I put into practice in my own business, added a lot of hard work, and it has borne results."

"The garageman is a sort of father confessor to car owners. He hears their troubles and learns their likes and dislikes. He sees owners come in with a new car thoroughly sold on it. They praise it to everybody who will listen to them. It's the best car on the market and they would never drive anything else. Then something goes wrong—perhaps some little thing resulting from lack of proper maintenance. They visit the service station and come away sore at the dealer. The first thing the dealer knows, he's got a lot of knockers driving his cars instead of boosters."

Mathis saw that happen so often that when he went into the business of selling cars he kept always before him and before every member of his organization, this one cardinal principle: "Tell 'em and sell 'em; then keep 'em sold no matter how much effort it requires."

*And It Taught Him a Few Things
That Helped Him to Become a
Successful Dealer*



Atlantic City showroom of the Mathis Motor Corp.

tion gets a card for its

"Then that little card in the service station goes to work. It gives us information for monthly service letters, and reminds us when the owner fails to come in as frequently as we think he should to get the best out of his car."

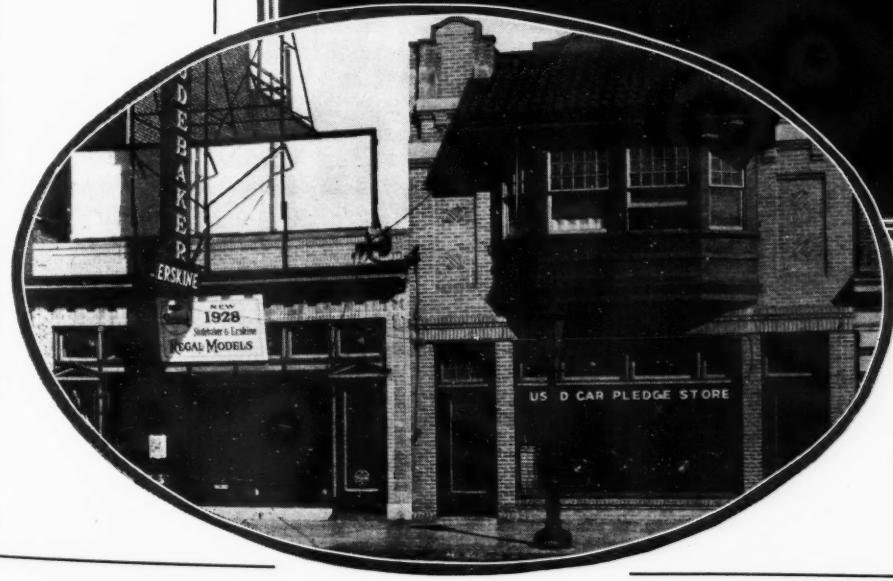
"We follow up every service job with a card asking whether the work was satisfactory. The replies come in to me. If there is any indication that the owner isn't thoroughly satisfied he gets a personal call within 24 hours."

"By doing that we stop petty grievances—and stop them quick. The customer must be satisfied. Sometimes this policy costs us money—but it pays in the long run. And it doesn't prevent the shop from making a profit. We have developed service volume by monthly service letters and by showing a real interest in the owner, and we sell accessories, too. Accessories and service have paid their way ever since we started business. They take care of their own overhead and labor and show a substantial profit as well."

But service is not the whole of Mathis' story. Atlantic City has a standing population of about 60,000. Tourists are its industry. It required intensive cultivation before Mathis developed his present sales volume.

Two years ago Mathis realized that new car sales

Ed Mathis, of
the Mathis
Motor Corp.,
Studebaker deal-
er, Atlantic City
and other Jersey
points



Pleasantville, N. J.,
branch of the Mathis
Motor Corp., Stude-
baker dealer

HE LEARNED HIS LESSON IN THE GARAGE BUSINESS

volume would depend entirely on his ability to move used cars. He saw he would have to lick his used-car situation before it became a "problem."

He got the jump on his field by organizing to sell used cars. He was the first Atlantic City dealer with a separate organization and a separate salesroom handling used cars exclusively. The better grade used cars he sells in an attractive salesroom adjacent to his new-car salesroom. For the others he has a used-car lot in the center of town.

"Good used cars must compete with low-priced new cars," he says. "Therefore we do everything possible to make the used car as attractive as the competition it has to meet. We give a fresh coat of lacquer to the better grade cars, and use paint and varnish on the others. We put every car in good condition mechanically, giving it a complete overhaul if necessary.

"We paint the tires with lampblack, glycerine and water. All the nickel is polished and we frequently have radiator and headlights renickled. Details of appearance are important—we try to overlook nothing."

Mathis uses the Studebaker Used-Car Pledge plan to good advantage. The five-day driving trial, 30-day guarantee on certified Studebakers, and the one-price-to-all policy, he finds, have established an exceptional degree of confidence in what he has for sale.

Aggressive, consistent advertising has been one of the chief factors in Mathis' success with used cars, he believes. He used billboards, posters and newspapers to such an extent that, as he says, "whenever prospects think of a used car they think of Mathis."

He has consistently followed a plan of selling his used cars, as well as new cars, where they will do him the most good. Atlantic City has a lot of jitneys.



Three "Ifs" an "And" and a "But"

If your used-car department is in good shape the new-car business will almost take care of itself," says Ed Mathis, Studebaker dealer of Atlantic City, N. J. But he qualifies that with two more "ifs": "If service is right, and if salesmen keep in touch with owners, who are the best source of new-car prospects."

with owners, who are the best source of new-car prospects.

Mathis uses two highly successful methods of proving to a new-car customer that his old car is worth no more than he's being allowed for it. When a prospect insists on \$600 for a car Mathis knows he can't sell for more than \$500, he takes the prospective buyer through the used-car showroom, where he can usually find three or four cars of the same make and model as the prospect's, on which price tags are plainly marked \$500 or less.

Another thing that saves trouble is a firmly established rule that the salesman must complete his sales talk and give a demonstration before an appraisal is made on the prospect's used car.

"Slam the car door, ask another question, drop your hat on the floor—do anything to get away from answering a request for an appraisal until you've done everything you can to sell the new car," he tells his men. "If you can't dodge the question until you've given your sales talk, tell the prospect that we handle a greater volume of used cars than anybody else in Atlantic City, that we therefore know values, and can give the prospect all his car is worth."

Don't Let Your Used Cars Ill Use You!

(Continued from page 23)

to pay for a car as the man who makes \$75, but we must sell him according to his earning capacity or repossess the car at a loss to both him and ourselves. There are cars selling for from \$100 to \$150 that will serve the man of limited earning capacity just as well as the \$600 or \$700 car for those better salaried. Our men are trained to undersell rather than oversell, and by doing so we very seldom have to repossess a car.

Ninety-eight per cent of all used cars are sold from the display room on appearance and the reputation of the dealer selling it, and the successful used-car salesman is bringing his prospect to the house to show him the car and close the deal; because when he gets the customer on the floor he is in a position to show him the car at an advantage, and show him in an intelligent manner why a certain car will suit his purpose and why the one that is aside of it will not.

Ten years ago when we employed an inexperienced man we put him to selling used cars. Today no man who has been selling new cars for less than four years

is competent to get out and make any degree of success selling used cars. The new-car salesman should know his car as well as that of his competitor. The used-car salesman must have a working knowledge of his own car and can sell it on the reputation of his house. But he must know his competitor and as much or more about his car than he does, to successfully sell it in competition with him, and the successful used-car salesman of today does know more about his competitor and his car than many of his own salesmen.

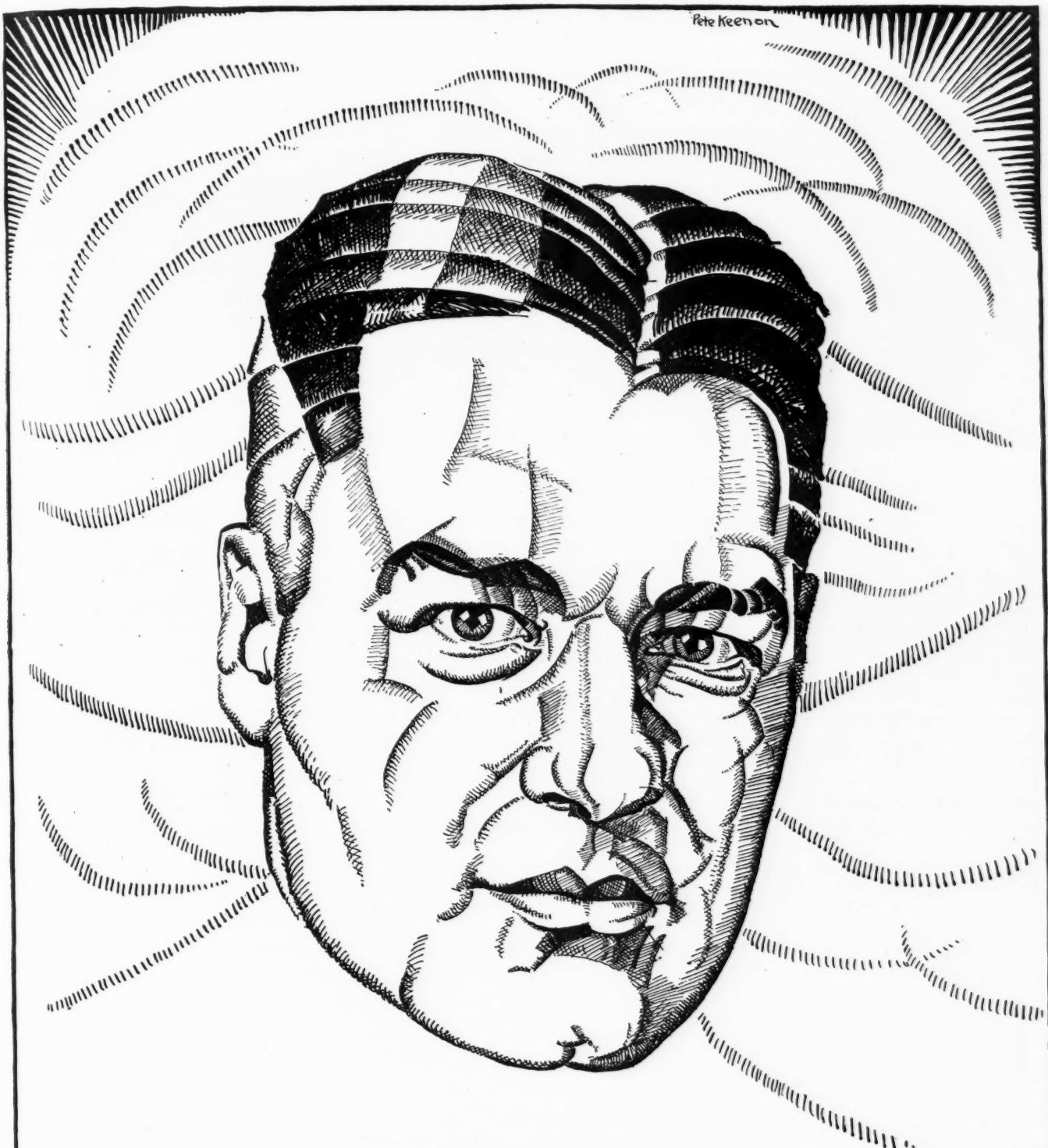
To the dealer who will follow the methods partially outlined here there will be no used-car problem.

Show me a dealer who is not overstocked on used cars and I will show you one whose banker has confidence in him and who is an outstanding merchant in his city.

A used car bought right, fixed right, advertised right, priced right and sold intelligently, stays sold. Handled otherwise, the dealer is his own strongest competitor and cannot last.

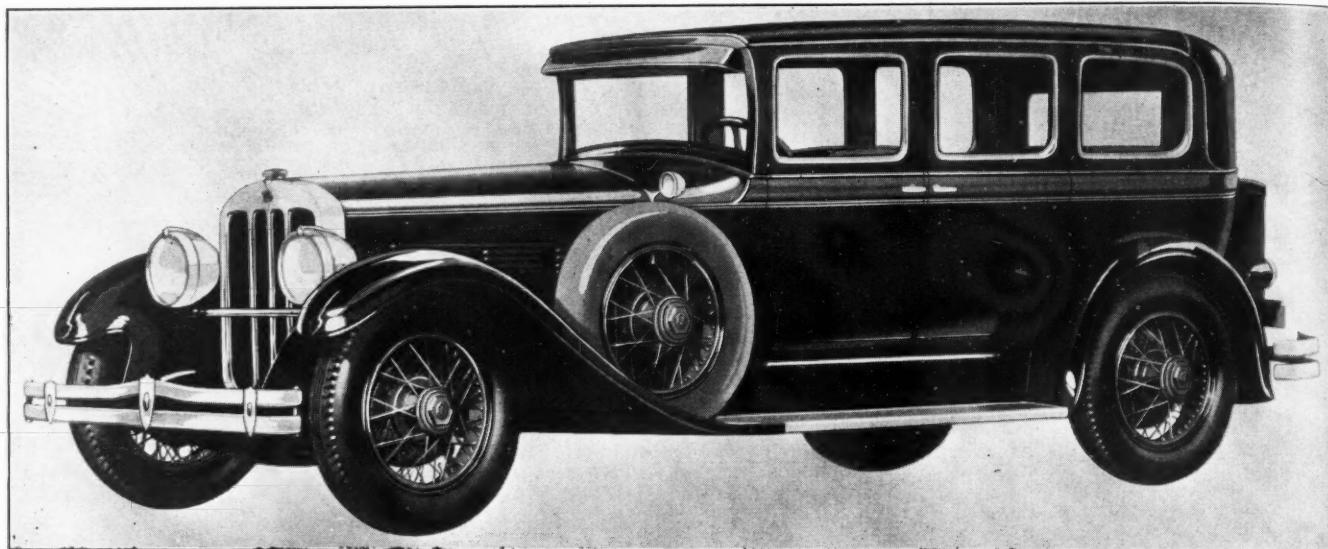
Mathis decided that if he could point to the use of Studebaker in jitney service, it would be a good recommendation for their ability to give steady, economical service. He captured most of the business of the principal jitney line, and of its 175 cars more than 100 are Studebakers.

"If your used-car department is in good shape the new-car business will almost take care of itself," he says. But he qualifies that with two more "ifs": If service is right, and if salesmen keep in touch



A MOTOR AGE IMPRESSION = W.C. STETTINIUS

President = American Hammered Piston Ring Co.



Chandler Royal 85 series de luxe sedan with wire wheel equipment

Chandler Produces a Smaller Eight

And Enters Lower Price Six and Eight-Cylinder Field. Price Cuts on Smaller Six and the Royal Eight Range From \$70 to \$200. Engine of New Eight Develops 75 hp. at 3200 r.p.m.

IMPROVEMENTS in the Chandler Big Six and Royal Light and the entrance of this company into a lower price six and eight-cylinder field than formerly are among the latest developments of the Chandler Motor Car Co.

As its leader in low price, Chandler has the 65, a six developed from the former Special Six, and selling within a \$875 to \$1,075 price range.

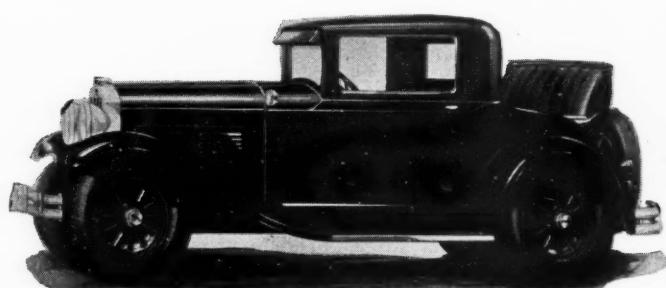
Performance has been bettered to a considerable extent on the Series 65. Primarily responsible for the increased power is an increase of $\frac{1}{8}$ in. in bore over the Special Six, this now being $3\frac{1}{8}$ in., with a piston displacement of 196 cu. in. and a rating of 23.4 taxable horsepower.

Contributing also is the new manifold, which is of higher speed design than formerly, and a new combustion chamber design which is remarkably effective in eliminating detonation, without reduction on compression ratio.

In the chassis also are found a number of important changes. Considerable attention has been given to the spring suspension, and the period of the springs changed to give better riding comfort. Tryon spring

shackles, of the self-adjusting type and incorporating tapered pins, are now used. These shackles contain oil reservoirs which reduce the number of lubrications required annually.

Some modification has also been made in the brake-linkage to give a lighter pedal pressure. Westinghouse vacuum brakes are available on this model at \$75 additional cost. One-shot lubrication systems can also be had at \$60 additional.



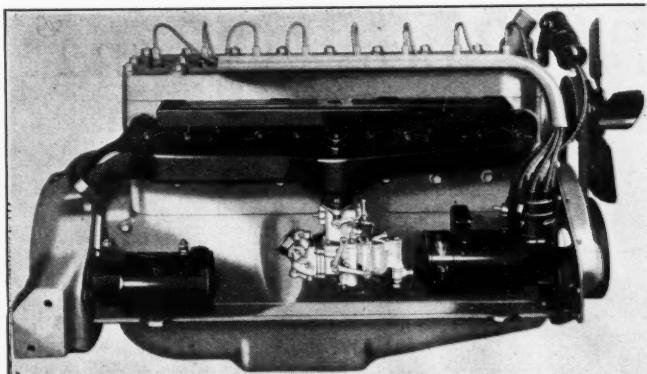
The Chandler 65 coupe with rumble seat

By Athel F. Denham

All exterior hardware, including headlamps, cowl lamps and bands, door handles, etc., are chrome-plated. A new radiator emblem in vivid black, red and gold provides a distinctive touch. On the interior is found a new decorative instrument panel, mounting in addition to the usual instruments, a gasoline gage and engine thermometer. Standard equipment also includes rear view mirror, automatic windshield wiper, Electrolock on dash, twin filament headlight bulbs, with light control on steering wheel, a built-in footrest and a robe rail.

All models are available in four optional color schemes. A special price of \$50 extra provides bumpers, bumperettes, Lovejoy shock absorbers and combination tail and stoplight as additional equipment.

Attractive body lines are immediately apparent on the Royal 75, the new low-priced 118-in. wheelbase eight, but the outstanding feature of this model is its



Above is a view of the right side of the new Royal 75 straight-eight engine

Connecting rods are 9½ in. between centers, and piston pins are locked in the rod, these being 7/8 in. in diameter. To make the bolt more accessible with the small bore piston, it is set in at an angle in the rod. Pistons are of cast iron and have an overall length of 3¾ in. They are fitted with three rings, the lower ring being of the oil control type, and the upper two 1/8 in. wide.

Exhaust valves are of silchrome steel, and inlet of carbon nickel steel. Five bearings support the cam-shaft, which is driven by a Morse chain. Combustion chamber design is quite similar to that used in the 65.

Fan and water pump are driven by a V-type fan belt. In the cooling system is also included a thermostat built into the cylinder head water outlet. Fuel system is of the vacuum type, using a Tillotson carburetor. Fins are provided on top of the high-speed intake manifold to cool the vaporized gas and obtain higher volumetric efficiency.

Electrical units are all of Autolite manufacture. Distributor drive is off the generator drive shaft, the latter being driven by the timing chain, for which it furnishes an adjustment. Starter engagement is by Bendix drive. The ignition coil is attached to a bracket at the front of the cylinder block.

In unit with the engine are the single-plate, 9-in. Borg & Beck clutch and three-speed transmission of Chandler manufacture, the latter being of similar design to the gearset in the series 65. Universal joints and propeller shaft are of Spicer manufacture. Rear axles are a Chandler product and of semi-floating design, using Timken taper roller bearings throughout. Timken bearings are also used in the front axle wheel bearings. Rear axle standard reduction is 4.9 to one, with a ratio of 4.5 to one available if higher road speeds are desired. Hotchkiss drive is used. Tires are 29 by 5.50 mounted on 19-in. wood spoke wheels, the spokes being of elliptical section to give a more massive appearance while retaining lightness.

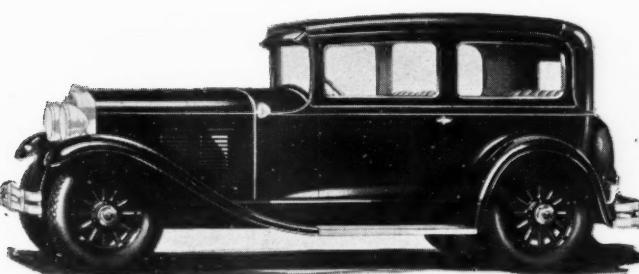
One-shot Bowen chassis lubrication is standard on this model, as well as the higher priced lines. The same is true of the Westinghouse air booster for the four-wheel external brakes.

A high, narrow radiator, cowl and hood, the latter with three sets of horizontal louvres, gives an impression of power to the front end.

Changes in the Big Six are largely confined to body refinements, although a Ross Straight ratio steering gear has been adopted for this model also.

The same changes are found on the Royal 85, the larger straight-eight which, as has been mentioned, is reduced in price.

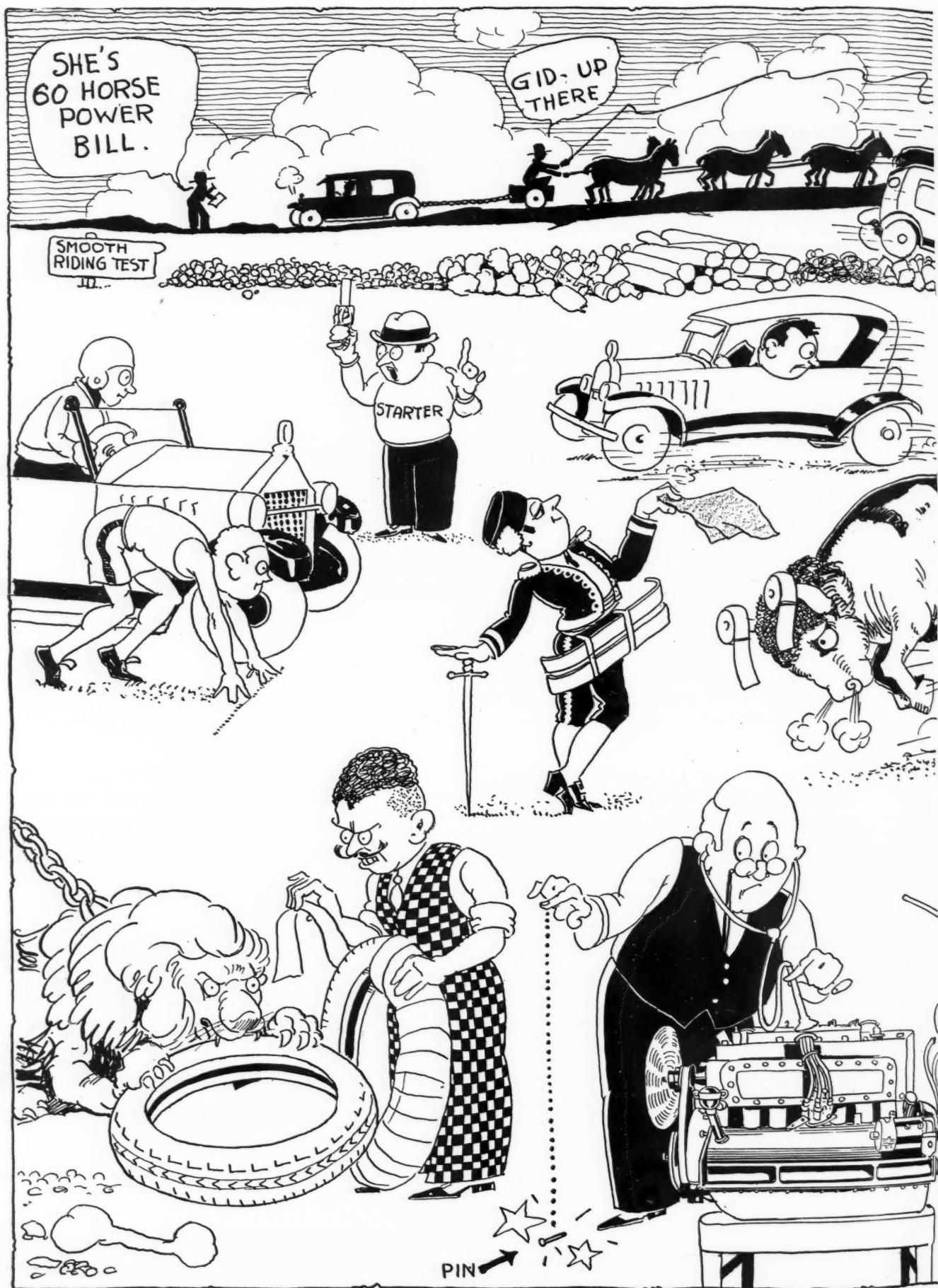
<i>The Chandler Line for 1929 With Prices and Reductions</i>			
<i>Series 65</i>		<i>Price Reduction</i>	
3-p. Coupe	\$875	\$180	
5-p. Sedan	895	100	
5-p. Touring	895	100	
2-4-p. Coupe	955	200	
5-p. De Luxe Sed. 995	160		
5-p. Sportster ...	995	90	
Cabriolet	1,075	140	
<i>Royal 85</i>			
5-p. Sedan	\$1,795	\$200	
4-p. Coupe	1,925	70	
3-p. Country			
Club Coupe	1,725		
7-p. Touring	1,725		
2-4-p. Cabriolet. 1,825			
7-p. Sedan	1,925		
Berline Sedan	2,025	New	
<i>Royal 75</i>			
2-d Sedan	\$1,295	New	
4-p. Coupe	1,295	New	
4-d. Sedan	1,395	New	
5-p. De L. Sed. 1,495	New		
<i>Big Six</i>			
5-p. Met. Sed...\$1,525		



*The Royal 75 is the new Chandler smaller eight line.
Here is the five-passenger brougham*

high performance. It is not built to deliver unusually high top speeds, but to provide the best possible hill climbing ability, getaway and acceleration, consistent with a maximum speed of 65 m.p.h. The eight-cylinder engine is said to develop 75 hp. at around 3200 r.p.m. It has a bore and a stroke of 3 x 4½ in., giving it a piston displacement of 254.4 cu. in. and a rating of 28.8 hp. Its five-bearing 2½-in. crankshaft is fully counterweighted, and its main bearing lengths are 1¾ in. for the front, 1½ in. for the intermediates, and 2½ in. for the rear. Crankpins are 2¼ in. in diameter, and have bearing lengths of 1¼ in.

The Proving Ground



By Pete Keenan



Taking the "ice" And Warming Up

Where will your car be?

Winter driving imposes hardships on an automobile. Possibly you losing its "pick up." The flashy getaway has gone and top speed notches.

Or perhaps you have noticed that your car is using more gas to. Your driving is costing you more per-mile!

A little "touching-up" or re-conditioning by our experts will put you up in front again. Removing carbon from cylinder heads, cleaning carburetor, fitting new piston rings, etc., will grind up the bearings, aligning connecting rod and make driving more enjoyable.

We will gladly make inspections and mates and advice cheerfully given. No Spring is just around the corner—pre-

W. W.
Sales
1126 West Broad Street
Newcastle Indiana

Thomson's "Prize-Winning" Buick Service

and no little pride that we announce the new slogan our Service and will maintain as their ideal of Service to Patrons.

having Select Service Organizations of the Station after learning that no classification has been made in the City where located. The most cases, been in cities much

our constant effort to improve our work which have won for us this honor.

with the To please is as important

it is a debt, a duty to our

Pride in our leadership, as well

we serve to the utmost of our ability.

"Prize-Winning" Buick Service!

OMSON
Service
NEWCASTLE, IND.

Harold B. Williams
Service Manager

WHEN WE DRIVE into an official Buick service station goes on there to insure our satisfaction. Probably we would think the only Service Manager and the working Service Manager who greets our car, diagnose our difficulty, and delivers it.

From here it will go to the diagnosis and assign the job to the man who will cover the car and will proceed with the work. Upon completion of the work, check the job minutely, even to a rigid inspection, the car will again where we had entered.

The Floorman upon seeing our car wheel, control levers, running board, etc., will call the Service Manager who waited on us upon inspection, checking everything that We call at the appointed time and find the car clean and ready to go. The final objective of every man, is to get and on time.

The above type of service is a part of so, that we might call it standard equipment of your Buick car and goes with it where ever it goes.

HAROLD B. WILLIAMS,
Service Manager

SALES
SERVICE
London of Satisfaction

W. W. THOMSON
Sales BUICK Service
1126 W. Broad St., NEWCASTLE, IND.

Harold B. Williams, the service manager who gives his views on one angle of service in this article.

Service at your Door—Phone 287

ERS REALIZE

tion of their car is not a matter of "Good Physician in case of illness or a capable Few Business and Professional knowledge of the details of their Dupulcously cared for.

ill by Ownership. Take To-day it Owners. Take advantage of the Full HAROLD B. WILLIAMS
Service Manager

The cards shown are used by Mr. Williams in successfully selling service

IT has been said, and all too true, that whenever the Boss wants to enjoy a pleasant afternoon, he does not discuss the service department. But why is this true? It should not be, and it is up to

the service man to make it otherwise. Servicing the public, particularly in our line of business, is the most interesting thing in the world, and I want to discuss some things, which I believe from my observation and

Out of Service to the Customer

*Some Hot Tips From a Service Manager Who Happens to Practice
What He Preaches and Whose Success is Proof That the
Pudding is Good for Any Shop's Diet*

By Harold B. Williams

*Service Manager, W. W. Thomson, Buick Dealer
Newcastle, Ind.*

experience, to be responsible for the above condition.

First let's take the subject—Service! What is it? Can you give a workable definition of the word service? Service I believe is a business science. By science, I mean a knowledge or a study of the principles underlying service and they are equally as applicable to the grocery or department store as to the garage and service station.

There are two parts to service: one has to do with equipment, tools, buildings, etc., and the other and more important part has to do with handling of the customer. We can buy equipment, tools, etc.—that takes no understanding of merchandising. But how are we going to maintain the place after we have made our investment? That takes a real understanding of service and merchandising methods and is the part I want to discuss here. Let's see wherein we too often fail, and how we may strengthen our weak points.

There are two critical times when dealing with a customer: one is when he drives in, and the other when he calls for his car and drives away.

Upon entering the service station it is very important that our customer get the right impression. The mechanical difficulty which has brought him in has probably gotten him in a very disagreeable mood. He is fussy, easy to offend and quick on the trigger. Let's not greet him and remind him of his trouble by asking, "What is wrong?" Instead let's give him a "Good morning" and pass some remark about his car looking so well. There are two outstanding tender spots about this customer: first is his family, and next is his car. Let's cash in on this and after a few brief remarks ask a question about some member of his family who is achieving success, or at least make a more complimentary remark about his car.

Using an example from our own service station, we have a particular customer, a doctor, who is a great lover of dogs and owns several fine animals. Invariably upon entering our station and after a friendly greeting, we will make a complimentary remark about his dog, which he always has with him. I have seen many cases where by our friendliness and kindness we have broken down the distinct barrier—that of a badly controlled temper. Learn your customer, his desires

and hobbies, and you can analyze and master the most exasperating situations.

After having accomplished this, inquire as to the nature of his difficulty. Get definitely in mind just what he wants, down to the finest details. Don't make the mistake of getting generally in mind the difficulty to be remedied, because, remember, your success or failure in pleasing this gentleman will depend directly on your ability to remove that noise as he hears it. If he has a specific squeak or rattle in mind he may spend \$50 on the car and place it in perfect condition, but you will fail—simply because you have not satisfied his one desire.

Another thing, don't let the customer leave without giving his car a hurried inspection. An owner's greatest expense with his car is when he is without the use of it, and if there is anything that we must get away from it is the necessity of the owner seeking the service shop for every single item. He wants continuous performance. Sell him a little preventive maintenance rather than make him visit your shop every few days. Call his attention to items that will need attention in the near future. Make a complete sale at one time and at one price and let him enjoy the satisfaction and you the profit!

Another suggestion on selling additional work. Take one item or an operation and explain it to him. Don't rumble off a long list of needs and expect to get anywhere with your sale.

I am reminded of an incident which illustrates this very plainly. A few days ago I saw a car drive into a tire service station with a flat tire and it was my good fortune to observe what happened there. The driver upon alighting from his car asked that the "flat" be repaired. I noticed the workman scrutinizing the tire closely as he proceeded carefully to dismount it. After doing this and putting the tire on a spreader, he gave it a brief examination and then called to the owner for his attention. He proceeded carefully to explain to this owner the tire has been bruised and the cords pulled apart and that a repair would be impossible. This tire service man knew at his first glance that the tire was worthless, but did he blurt out this in-

(Turn to page 36, please)

A PAINT SHOP BEAUTIFIES USED CARS

(Continued from page 21)

was not necessary to have such an exceedingly smooth surface with this finish, and that it did not require nearly as good a place in which to have the work done, due to the fact that the material dried very quickly.

"This finding helped to reduce expenses and naturally helped to make more money. Our experiments continued. After eight months we learned that lacquer could be used, where the car had that type of finish, to better advantage than oil finish.

"We purchased a compressor and tank, and used the same guns that we had used. With limited experience our men were able to apply lacquer finish where the surface was better adapted for it than the oil. We have used air guns for the chassis and brush for the body when using the oil finish. For lacquer we use the guns exclusively.

"We now figure that light touring cars should be painted for \$10; small sedans, such as Chevrolet, Star and Overland, for \$15; large sedans for \$25 and \$30.

"This means a saving to us of \$25 on light touring cars; \$35 on small sedans and \$45 to \$50 on the large closed cars.

"This is not the most important advantage that painting our own used cars affords. Painting them in our own shop keeps our stock intact. This is a mighty important advantage because we can show a prospect the car while it is being painted. In other words, it is a good sales argument, and we use it as such.

"The time it takes to get a job through is important. When we sent out our used cars it took from 10 days to two weeks before they came back. Doing the work ourselves has reduced the time from one to four days.

"We can take a year-old Whippet, repaint the body and chassis for approximately \$20, and make a good profit.

"We use our paint shop in repainting new cars to meet the taste of the owner. We have had a number of instances where the owner admired the color combination of a high-priced new car but desired a car costing considerably less. For \$35 we were able to give him the color he preferred, just the same as if it had been done by the manufacturer.

"We spend a great deal of time and thought in creating various color effects. There is no question but that bright and snappy color combinations are attracting the buyers. Many times we have painted 1927 models with 1928 colors. This has proven a big help in selling many makes of cars, because the new paint makes it difficult to tell the year of the car.

"I wouldn't advise dealers to paint 1927 models with the 1928 colors if the body lines have been altered very much. Neither would I advocate painting a four-cylinder car in the same colors as a six-cylinder

THE advantages to the dealer of operating his own paint shop are summarized as follows by Mr. Rutherford:

1. Cuts repainting costs to the bone.
2. Keeps your stock intact—a mighty important factor, because you can show a prospect the car while it is being painted. In other words, it is a good sales argument.
3. Work is turned out more rapidly.
4. Used cars can be repainted to meet the taste of the prospect.



Making the car ready for painting

car of the same make. I don't believe that one can take a six-color combination and use it on a four with any degree of success. Neither would I paint a sedan with the same colors that I used for a sport roadster.

"Striping, properly used, is a decided help. If the dealer knows that his help is not adept in using the striping, I would advise him to call in an outside painter for that particular phase of the work.

"We have done custom painting for our owners, which means additional profit. We have not made it a point to go after this business, preferring to push our used cars and what new cars owners have asked us to repaint.

"Another important advantage in having your own paint shop is that you can rush through your shop those used cars that are in demand. When we see that a certain make is a fast seller, we rush all cars of that make through in preference to all others. This pays. We have put cars in the paint shop in the morning, and have had them on display that evening, and have had buyers before closing our doors."

To those automobile merchants who contend that it doesn't pay to paint used cars or that its value as an attraction to used-car buyers is over-rated, Mr. Rutherford has this to say:

"Would you rather spend \$10 and sell the used car tomorrow or would you prefer to spend \$1 a week for 10 weeks and then possibly take depreciation in addition to having storage and other carrying charges that accompany a large used-car stock?

Do you realize that the man buying a used car for \$75 or \$100 takes that car home with the same amount of pride as the man who spends \$2,000 or \$3,000 for a car? That car is a new car to his family. It carries the same pride of ownership as does the higher priced new car. And every dealer knows that pride of ownership and appearance are two primary factors in selling automobiles.

"Take the case of two automobile merchants in the same block with practically the same automobiles on display and with the same buyers to inspect the two stocks. How much greater appeal would the dealer's cars that have good finishes and attractive color combinations have over the other dealer's cars that are polished with the rust spots touched up and some of

(Turn to page 36, please)

A Layout That Should Boost Business

A Ford Dealer With a 120-Car Contract and an Ample Property Seeks the Best One-Story Plan

BY TOM WILDER

YOUR article on Ford Sales and Service Building in April MOTOR AGE was both instructive and enjoyed by us. We have a problem of just what would be the right plan for our building. We recently purchased property the dimensions of which are enclosed. This property is on the west side of the street and is on the one main street of our city. Gilroy, proper, has a population of 3500 people.

Our contract is for 120 cars, 24 trucks and 36 tractors. With this we sell many plows, cultivators, harrows, etc., as well as the regular run of accessories. Our shop work is fair, employing five men, including the foreman in the shop.

We would rather have but one story, for two, we think, is not necessary in a town our size. We want a showroom sufficiently large to display Ford products, a good-sized service department, and a good-sized stockroom, as we are in the southern part of Santa Clara County and must have a sufficient stock of parts on hand at all times.

We have as a maximum 12 used cars on hand at once and could not use any space for storage for outside cars. We want a grease and oil and an extra large gasoline station for all cars, though we repair Fords only—other cars in a pinch, such as our friends, etc.

On the south we are about 80 ft. from the corner, and our lot runs clear through to the back street on the west. We thought of building on the front side only, say back from the east line 142 ft. We had thought of our oil and gas station on the back lot and a driveway clear through.

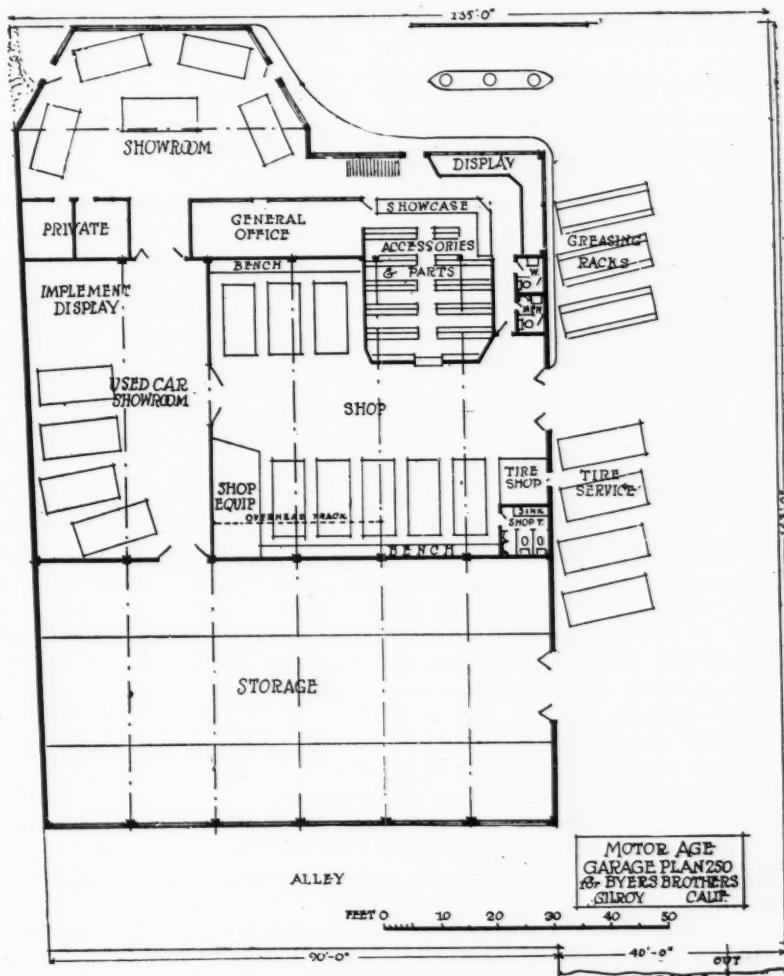
We will appreciate your valued opinion of this matter. May we hear from you?—Justin W. Byers, Byers Bros., North Monterey Street, Gilroy, Calif.

AS near as can be judged from your description, this is a very well situated piece of property for a Ford dealership and has the advantage of being large.

There are plenty of Ford dealers trying to do a 120-car business on lots less than a quarter the size of this, so that with all this extra space for service and display, we shall expect you to at least double your contract very shortly.

The suggestion to make the rear lot a gas and oil station would not be very practical. In the first place, it would not be seen and besides that, it would be unpopular except to the very few who might be driving across town in that direction. Certainly tourists or persons passing along the main street would not want to be shunted off onto a back street.

You have plenty of room so that you can afford to use part of your front space for a filling station, and our layout will not only display Ford cars, but give the filling station and accessories a chance as well. The bay effect will give the showroom a good display in both directions and will give an excuse for having windows looking across the property adjoining you. Cars driven from the side street will be especially impressed with the showroom and as they get



A considerably larger shop and storage garage could be had if the wide passage and outside service were eliminated, but this sort of thing goes so big in California that perhaps you should mix in it as long as you have the space available.

closer will see the filling station.

Your letter does not state that you want a used-car showroom, but with so much space at your disposal, it would be a good thing. The shop is plenty large to keep your five men busy, and with the outside greasing and tire service you will probably need more men. You will note that the width of the shop and used-car showroom is greater than the width of the storage garage. Both of these widths are too scant for large cars, but are liberal for Fords. If your shop should require more space you could annex the used-car showroom.

TAKING THE "ICE" OUT OF SERVICE

(Continued from page 33)

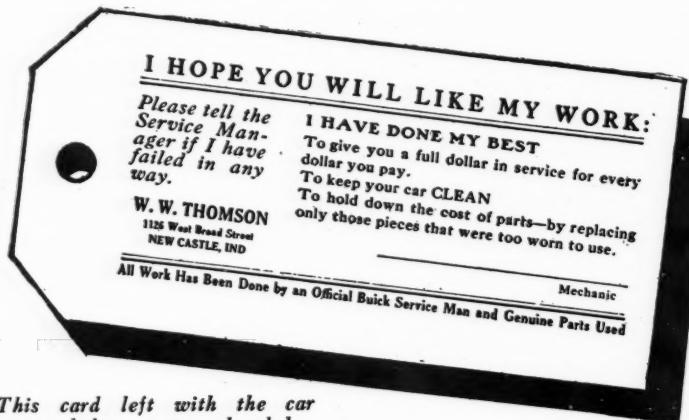
formation to the customer? No! Instead he proceeded carefully to explain the situation and in a few minutes' time made a \$35 sale.

There is a splendid lesson here for the service man.

There is another angle of our service which has been a sore spot. That is (as it has been in the past) the lack of a definite policy on service charges. Thanks to flat rate! We haven't been having any difficulty with the price of the new car, or the selling of parts over the counter. But how about the labor bills? When a man walks in and asks, "How much will it cost?" he has a right to have an intelligent answer. Other business is run that way. We have got to sell in advance. We can't wait until the delivery of the merchandise and then make the sale. Thank goodness, we are progressing along this line and are getting away from the old method.

After proceeding with our service transaction this far, we come to the point where we have the job ready to submit to the shop for mechanical correction and completion. I will not dwell on this item, as I believe the average automobile merchant today is not bothered with lack of mechanical skill. This feature is pretty well provided for, so let's pass on.

Next let us take the job after the shop finishes it. The job has been completed, checked and tested, now what do you do to prepare the car for delivery to the customer? Nothing? If not, you are missing one of your greatest opportunities because, as I have mentioned before, this is the second critical point in handling a customer. Before the specified time for delivery the job should be inspected for cleanliness. Clean thoroughly and remove all traces of grease and dirt from running boards, steering wheel, control lever and in fact the entire car. In our own service station we wash and polish each major job amounting to \$50 or \$60 or more. It has been said that "All the good-will created by a worthy product, true advertising and honest merchandising can be destroyed by a discourteous salesman, a careless mechanic, or a promise unfulfilled." How true this is in reference to service!



This card left with the car owner helps create a bond between the customer and the mechanic

Another point: you can go the limit in mechanical perfection and produce a job that is absolutely above reproach, but if you do not send the customer off properly, you will be only partly successful. Every person leaving your service station should take with him two articles; one, of course is the job which he asked for, and the other—customer satisfaction! Good-will! For this reason the same attendant

that originally met the owner and took his order should also deliver his car back to him. Tell him briefly the difficulty which you found with his car. Tell him the trouble was remedied, not merely on the surface, but you went to the source and removed the cause. In other words, fix his mind as well as his automobile and he will remain "sold" and will not look for the loopholes and faults which follow a skeptical mind.

The last item which I want to dwell on, and which in no way the least important, is something which will apply to each of the phases of service which I have already discussed. It is something that costs no money and is not hard to practice; it is friendliness—just plain friendliness. We hear so much about courtesy, politeness, etc.—but none of them equal true friendliness. I have seen employees that were courteous and very polite but if they attempted to be friendly and to smile, they would break every bone in their faces. Just think it over, fellows—the way we have been treating the public; no wonder they have the attitude they have. It doesn't make any difference what the customer says about you, he can't hurt you, but what we say to the customer hurts us and hurts our business. The big job for the Boss and one big reason why he does not speak pleasantly of the service department, is that he has been having so much trouble getting his men in overalls to realize the importance of pleasing the customer, who is the very source of our income.

The next time an owner drives into your place of business, be kind and patient and explain. Know your stuff; what it will cost and when he can get it; deliver it clean; but above all have friendliness and a desire to serve, and the profits will care for themselves.

A Paint Shop Beautifies Used Cars

(Continued from page 34)

the cars in the same condition as they were when taken in trade?

"About polishing and touching up the rust spots. It has been my experience, and it has been supported by my dealer acquaintances, that it costs at least five or six dollars to thoroughly clean and to touch up the rust spots, and polish any used car before it is ready for sale. It requires no more cleaning to get a used car ready for a coat of oil finish than it does to get it ready to polish and place on display."

"I have sold used cars by giving them a coat of oil finish that could not have been sold by merely polish-

ing them. Allow me to give this example:

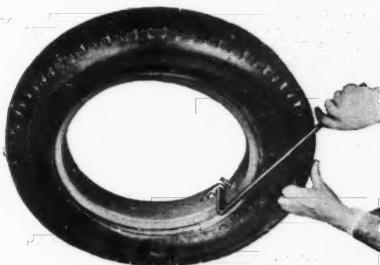
"A year ago we had several Fords in stock which could not be moved, although they were in good running condition. Their appearance was the big drawback. As junk they would not have brought more than \$10. We refinished them at a cost of \$4.65 for the material and labor and within three days they sold for \$35 each."

"My experience with our paint shop has shown me that it is a winner, if conducted properly. The fact that it helped me to return a profit of \$4,000 on my used-car operations last year is proof of its worth."

The Latest in Accessories

New Rim Tool

THE Kennedy C.W.C. rim tool, made by the Pacific Rim Tool Co., of 1145 Galewood Drive, Cleveland, Ohio, is especially made for a number of new cars. A new type of rim, which requires the use of this tool, is now appearing on the Chrysler 62, Nash, Oldsmobile, Durant, Star, Graham-Paige, Reo and Peerless. This tool is made of chrome molybdenum steel, heat treated and tempered in oil. The handle of the



tool is 20 in. long, thus giving the operator plenty of leverage. The tool is guaranteed against either bending or breaking when used in operation with the No. 25 C.W.C. rim. The list price of this item is \$1, and it is especially designed for either private or service station use.

Theft-Proof Tire Mirror

AMIRROR supplied in two sizes, one size for tires 5.25 in. and under and the other for tires over 5.25 in., is a convenient accessory now being made by the Monarch Tool and Machinery Co., 522 S. Clinton St., Chicago, Ill. This mirror has a ball and socket adjustment which the manufacturer claims will not loosen and which holds it firmly in position. It can be attached to a disk wheel as well as to other types



of spare wheels. A bolt attaches the mirror to the post and is concealed so that the mirror frame cannot be detached, and a ball joint swivel permits

adjusting at any angle. The metal work is of solid brass with highly polished nickel-plate finish and the mirror is good quality bevel edge plate glass, measuring 5 in., in a 6 in. octagon rim. The list price is \$15.

New Radiator Core

UNUSUAL strength and great cooling ability are the outstanding features of the Kramer Turbo Core, the latest core development of the Trenton Auto Radiator Works of Trenton, N. J. The Turbo has 36 water passages to the frontal foot. Each passage is $\frac{1}{8}$ in. wide, thus eliminating any chance of clogging. The cross-



sectional view gives a good idea of the construction of this core. The Kramer Turbo Core is made in thicknesses from 2 to $3\frac{1}{4}$ in. in $\frac{1}{4}$ -in. variation. While this core is used on several cars as regular equipment, it has a large field of use in the replacement trade. This is manufactured under Kramer and Harrison patents.

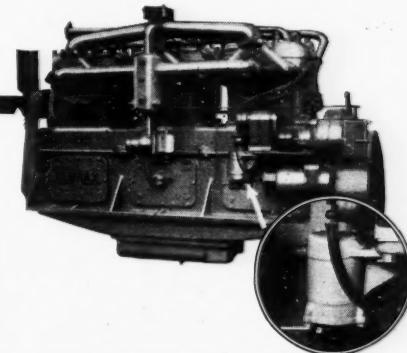
New Hand Soap

MILER SOAP CO. of Reading, Pa., announces its new Misco hand soap for automobile mechanics. This soap contains no grit but is made from ground sassafras bark which thoroughly cleanses but does not roughen the skin. Glycerine is another part of its composition which, of course, is very healing and softens the skin. It is claimed that Misco hand soap can be used without harm by lady motorists and at the same time will thoroughly cleanse the hands of a mechanic. It is

put up in Jumbo tins containing 32 oz., which list at 30 cents, and smaller tins containing 14 oz., which list at 15 cents.

Automatic Spark Control

ACCURATE regulation of the speed of industrial engines is assured by the automatic spark control recently developed by the Climax Engineering Co., Clinton, Iowa. This device oper-



ates from the suction in the intake manifold. A substantial saving in gasoline as well as in engine wear results from the use of this when used on equipment that operates under intermittent loads. This spark control is now incorporated on Climax engines and can be applied by any Climax service station.

Pilliod Tool Box

A COMBINATION tool or tackle box, readily convertible from one use to the other, is made by the Pilliod Cabinet Co., Swanton, Ohio. This box consists of a sturdy wooden frame, completely covered with enameled metal, with corners protected with heavy angle iron, brass plated and lacquered. All hardware is attached with double clinched rivets, 59 such rivets being used. Removable partitions in



the tray make it possible to adopt the case to any size of tackle or tools. This box is particularly recommended for use around the home, in the car or in the garage. The retail price of this case to the consuming public is \$3.50, with attractive prices being offered to jobbers and retailers.

Useful Shop Equipment

Paint Spraying Outfit

THIS paint spraying outfit is used for spraying light paint, enamel, Duco and lacquer and does touch-up jobs and complete paint jobs quickly and effectively. Attachment to any compressed air line makes the Imperial Paint Spray Outfit ready for use. Included in this outfit is the



Imperial paint spray gun with 6 ft. of rubber hose; Imperial air filter with shut-off cock and Imperial type DG regulator with gage showing air pressure up to 100 lb. The price of this outfit is \$22.50. It is made by the Imperial Brass Mfg. Co., 1234 W. Harrison St., Chicago, Ill.

Work-Benches

PRACTICAL, neat and profitable shop equipment, in the form of benches, both the stationary and portable variety, are among the products of the Standard Pressed Steel Co., of Jenkintown, Pa. In addition to complete benches, this organization also produces steel bench legs, from which

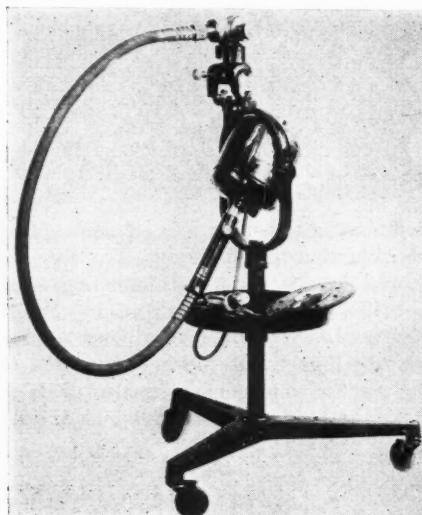


shop operators can economically and quickly produce their own benches to fit in any available space. These steel bench legs are not only light, but extremely strong and easy to keep looking presentable. Due to the great variety of benches constructed by this company,

it is impossible to describe them all here. A catalog describing all of these products will be sent without charge to anyone who requests it

Flexible Shaft Machine

THE MALL TOOL COMPANY, 7740 S. Chicago Ave., Chicago, Ill., announce the addition of a new machine, No. 2426. This machine is rated at $\frac{1}{2}$ hp., with $1\frac{1}{4}$ hp. available when needed, and has an added tilting feature over other machines, allowing the motor to tip up and down as well as turn in a horizontal position. This new tilting and swiveling feature allows the use of a lower motor stand and permits the operator to bring the machine much closer to his work, giving him greater working ease and wider working range. The universal action of this mounting reduces the strain in the flexible shaft to a maximum. The yoke making the tilting action possible not only offers a protection to the motor, but serves as a tool holder. If the operator wishes to do stationary buffing, grinding or polishing, the working tools can be held by the tool holder on the yoke.



One important feature of this machine is that it is very powerful, yet light enough to carry about, four pounds of weight being all that is necessary for the operator to handle. If there is work to be done in the yard or street outside the shop, the entire machine can be carried to the desired spot. The machine is equipped with Mall red rubber covered flexible shaft, which is claimed by the manufacturer to be extremely durable. The price is \$145.

Manley Tire Changer

ATIRE changer with an unusually wide range of use has been developed by the Manley Mfg. Co., of York, Pa. Not only is this changer quick in operation, but it will handle tires whether on disk or wire wheels, as well as those mounted on solid rims. A rack and pinion press is supplied for



forcing tires that are badly stuck or rusted. Automatic jaws prevent any possibility of the rim slipping. The same jaws act as supports when applying solid rims. The plain machine for split rims sells at \$50, while attachments for solid rims are \$15 additional.

Repair Jack

AN adjustable repair and display jack of heavy steel construction is being sold by the Ajax Auto Parts Co., Racine, Wis. The load is carried on an oversized high carbon steel bar. This bar has machined teeth which provide fine adjustment. There are no springs nor pins in connection with this jack. A large base of four-point contact assures safety and prevents any chance of slipping. Such a jack is handy on many service jobs such as brake adjustment, spring and shackle replacement and work on wheels and bearings. This jack is known as C1. It has a capacity of 2 tons and a range from 11 to 18 in. The base is 9 in. square. The weight 10 $\frac{1}{2}$ lb.



READERS' CLEARING HOUSE

Questions Answered By C. Edward Packer

Chevrolet Problems

How is the camshaft of a Model K 1925 Chevrolet replaced? Is one of the bearings replaceable or are they all integral with the block?—W. Brunnich, 627 Potter Ave., Milwaukee, Wis.

To replace the camshaft, drain and remove the radiator. Remove engine front cover. With puller remove engine camshaft gear. The head should be removed so that the push rods can be taken out. This is necessary in order to keep the push rods clear of the cams when withdrawing the shaft. To install the shaft the processes just enumerated are reversed. The bearings are all integral with the block.

Will the fact that the generator cut-out points remain closed after stopping the engine, cause the burning of the wiring, especially of the wires running from the starting switch to the ammeter and from the ammeter to the generator. In connection with this question would it make a difference whether the battery were fully charged or not? That is, would the wiring suffer if the battery were fully charged and would only the battery be harmed if it were not fully charged? What I am trying to get at is, must there be a ground in order to burn the wiring or will the mere sticking of the cut-out points do this?

There is good reason to believe that the mere sticking of the cut-out points would be sufficient to cause the trouble that you have had with your wiring. This is particularly true if the car were allowed to stand for several hours with the points stuck. That is, the amount of current flowing from the battery through the generator when the points are stuck is not so great as to burn the wires immediately, but the wires would warm up and in a short time it is likely that they would begin to char if they did not actually catch fire.

A Chevrolet I service has a funny arting knock in it. It acts very much like a main bearing knock and again it does not. The knock is only produced by accelerating and that only if the engine turns over at speeds corresponding to 25 miles an hour or more. If the speed is held stationary, no knock results. The knock is most pronounced when accelerating from 30 to 40 miles an hour, but when the brakes are set and the gear shift lever is in high and the clutch is allowed to engage slowly no knock is produced. The engine is in good shape, the compression is good and even, the connecting rods absolutely tight. The knock is not quite so pronounced when spark is retarded but it is still there. The car climbs the hill at 10 miles an hour beautifully without knocks.

YOUR trouble sounds to us very much as though you had a sprung connecting rod. We assume, of course, that you have the facilities for checking up on this and would suggest that you inspect all of your rods. A main bearing knock is always with you when the engine is pulling hard, particularly at low speed; that is why we do not believe this is a main bearing knock. It might also be well to check to see that the flywheel is not loose on the crankshaft.

Oil Leak From Camshaft Bearing

I have a Nash Big Six that has an oil leak at the rear main bearing that I can't seem to stop. The crankshaft runs too close to the bearing to put on a drain pipe. I have a very good fit on the bearing and I have cut another oil groove in it, but still it leaks at high speed and when you stop the engine after a long run it leaks about a cup of oil. Please give me some information on this problem.—Ray Schutt, 408 Avenue D, Sterling, Ill.

We do not believe that this leakage at the rear of your engine is from the main bearing. If you investigate you will probably find that it is coming down from the rear crankshaft bearings and dripping from the rear main bearing.

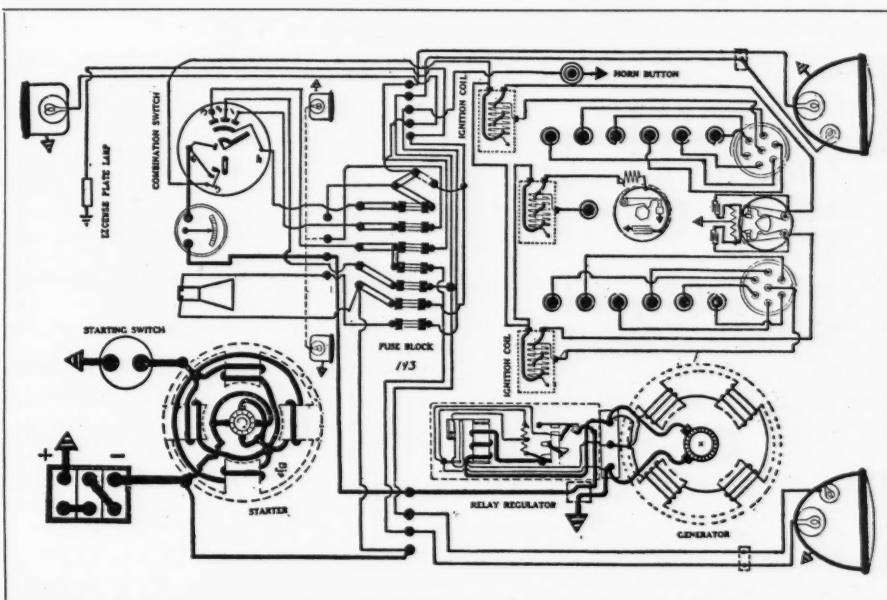
In order to cure this trouble it will be necessary to drop the transmission and remove the flywheel. This will ex-

pose the rear camshaft bearing. To withdraw the rear camshaft bearing remove the starting motor and withdraw the rear camshaft bearing holding stud, which will be found at one side of the starter. Remove the cap screws that hold the camshaft rear bearing and withdraw the bearing. Then install a new style camshaft bearing and new gaskets. Take the cap screws and drill their heads so that a wire can be passed through them. After drawing these cap screws up tight, wire them in place so that this rear camshaft bearing cannot again come loose. We feel sure that this will cure your oil leak.

Wiring Packard Twin-Six Fuelizer

I am working for an automobile company here at New Hampton, and there is a Packard Twin-Six here that does not have the fuelizer wired up. Would you please send me a diagram showing how to wire this up, as soon as possible, as the car is going to leave here soon. I have tried two or three different ways using the breaker points for the other coils, but it does not work. It causes the cylinders to miss and the engine then does not have power or speed.—W. D. Replogle, Box 383, New Hampton, Iowa.

It is certainly unfortunate that you didn't have an up-to-date wiring manual available when this problem came up. We are showing a wiring



Packard Twin-Six wiring diagram

[READERS' CLEARING HOUSE]

diagram from the Standard Auto Electrician's manual which shows the connection of this fuelizer. As will be seen, the current for the fuelizer is turned on when the ignition is turned on. The fuelizer coil is connected to the ignition coil that supplies the right bank of cylinders. A separate interrupter is supplied for this fuelizer. With this diagram we have no doubt that you will be able to hook this up correctly.

How to Calculate Engine R. P. M.

I would like to know the proper number to use to obtain the r.p.m. of the engine for any desired speed in miles per hour on the following 1928 cars: Chevrolet, Pontiac, Whippet 6 and Buick.—Nichols' Garage, Liberty, N. Y.

YOU can work this little problem out very nicely for yourself on these cars, or any other cars, by referring to the specification tables which are a regular feature of MOTOR AGE each week. The first thing you want to know is how many revolutions the wheels make in going a mile. To reduce the amount of calculating that you have to do, it would be well for you to keep the following tables handy:

Wheel Revolutions Per Mile	
28 in. wheel	721 rev.
29 "	696 "
30 "	672 "
31 "	650 "

Multiplying the gear ratio by the number of wheel revolutions per mile gives the number of engine revolutions per mile. You will appreciate that at 60 miles an hour—a mile a minute—this is also the engine r.p.m. Should it be necessary or desirable to obtain the engine r.p.m.'s at any other speed than 60 miles an hour, multiply your revolutions per mile by the number of miles per hour for which you wish the speed and divide that by 60.

Willys Oil Pressure

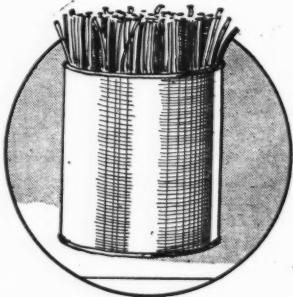
On a Willys-Knight 70 what should the oil pressure be, and how is it regulated?—Wayne K. Peabody, R. R. No. 1, Taylorville, Ill.

THE oil pressure should be practically one pound for each mile an hour of car speed, up to 25 miles an hour. We call this pounds, but actually the gage is not calibrated into pounds—what we really mean is 25 divisions of the gage to be the maximum reading. Should your gage register too low you should first be sure that your oiling system is in good condition and that you are not losing oil through loose bearings. If it is then desirable to increase your pressure you can do so by shortening the rod which connects the oil pressure cam to the throttle. As you know, this is a throttle-controlled

SHOP KINKS

Ideas that have proved useful

THIS idea should prove useful to shops handling battery service or to battery service. Most of these shops attach tags to the batteries by means of short wires which are purchased in bundles. Inconvenience and loss is the result of not taking care of these bundles of wire. Probably the easiest way of keeping them in place is to have a small can just a little larger around than the bundle of wires and about an inch shorter. In this way the wires can be cut and readily grabbed. The can can be nailed in any convenient location on the repair bench or wall.—V. A. Scheel, Humboldt, Iowa.



Readers of MOTOR AGE are invited to submit ideas that they have found useful in doing some particular service job in the shop in a better or quicker way. For each one published \$2.00 will be paid. Whenever possible the idea should be accompanied by a sketch or diagram from which a drawing can be made.

system and shortening this rod begins to increase the pressure at an earlier point when speeding up the engine.

Breather Action

What causes back pressure? A new car traveled 6000 miles pumping oil very badly and had a back pressure in the crankcase. I took the engine apart and found the cylinder walls and pistons O.K. Installed new rings, stopped the oil pumping, but still this car has a back pressure, blowing oil out through the breather pipe. Can this be stopped?—John Badnik, Box 801, Prince Albert, Sask., Canada.

IF this is a four-cylinder engine it is unlikely that you can do anything to overcome the trouble. If this is a six, it is a most certain indication that you still have leakage at your pistons in one way or another. If you know that the pistons and rings are a perfect fit with good, true cylinder walls, there is a possibility that there is flaw behind the upper piston ring. That is, there may possibly be a sand hole in the pis-

ton casting behind the upper piston ring which might account for the compression and explosion leaking by and causing the flowing out at the breather.

Loose Intermediate Bearings

I have a Dodge Senior sedan at the shop that pulls on high gear at moderate speed, 20 to 25 miles an hour, and has a very peculiar knock, just like a connecting rod loose. This car is almost new and has been twice at the Dodge service station. The driver says the car has never been misused and that such a knock appeared two or three days after it was delivered by the dealer. I made a close inspection of the connecting rods, piston pins, rings and crankshaft bearings, and everything seems to be O. K. Any information regarding this case will be greatly appreciated.—Manuel Munoz, Queretaro, Mexico.

YOUR trouble sounds very much as though the two intermediate bearings on the crankshaft were a little loose. This is a five main bearing crankshaft and we believe that you will find bearings 2 and 4, which are very narrow, to be loosely fitted.

Removing Lime Scale

Is there anything on the market will take the scale out of an engine block and head? If so, please let me know.—H. A. Simons, Box 805, Highmore, S. D.

A SOLUTION of 1 pt. of muriatic acid to 1 gal. of water is quite effectual in loosening the scale in the water jackets of an engine. This solution should be kept in the jackets for 30 min. or until the scale begins to loosen. It should then be drained out and the jackets thoroughly flushed with clear water. The addition of a little soda to the flushing water will neutralize any remaining acid. The soda rinse water should then be flushed out with fresh water.

Racing Stuff

What is the highest speed gasoline engine on the market?—John Badnik, Box 801, Prince Albert, Sask., Canada.

BOTH the Miller and Duesenberg engines are extremely fast. We believe, however, that the Miller, made by Harry Miller, Inc., Los Angeles, Calif., is the fastest gasoline engine produced. In test this year with a new supercharger it was claimed that a speed slightly in excess of 8000 r.p.m. was turned up.

This information is based on comments from both Harry Miller and Fred Duesenberg. Should you wish to corroborate these remarks we would suggest that you write directly to these men in care of Miller Engine Works, Los Angeles, California and to Duesenberg, Inc., Indianapolis, Ind., respectively. There is no doubt that each of these men will be glad to acquaint you with the latest developments at his plant.

[READERS' CLEARING HOUSE]

High and Low Speed Engines

What is the difference between a high speed and a low speed four-cycle gasoline engine? What causes one engine to run faster than the other with practically the same bore and stroke, only a different make? For instance, the Chrysler 6-72 and the Studebaker Big Six. The Chrysler turns around at about 3300 r.p.m. with a rated hp. 25.35, while the Studebaker turns up about 2500 r.p.m. and has a rating of 36 hp. The only difference is that Studebaker has a little larger bore and larger piston displacement. Is the camshaft on the high-speed engine different from the low-speed engine? Please state how the high-speed engine differs from the low. Having worked on both I am unable to find the difference, except that I see that one runs faster than the other.—John Badnik, Box 801, Prince Albert, Sask., Canada.

TO begin with, you should understand that calculated horsepower is no indication of the actual brake horsepower that an engine can develop. The horsepower calculation for the purpose of issuing an automobile license is, diameter of the piston squared times the number of cylinders, divided by 2.5; now it may be that because one engine can run a lot faster than another that one may have a low horsepower rating and yet deliver more than an engine with a higher rating. This is not always true, but it sometimes happens. Things that determine the speed of an engine are the weight of the reciprocating parts, or in other words, the pistons and rods, the compression ratio, and the ability of the carburetor, intake manifold and valves to handle a full mixture at high speed. Generally a car that is especially prepared for high speed does use a special camshaft for the purpose of giving the valves a higher lift. This is not always desirable, however, in the regular production car, for the reason that this higher lift is more destructive and noisier than the lower lift. Noting that you prefer to compare the Chrysler 72 and the Studebaker Commander, we will point out a few things that may be particularly interesting to you. These, however, are all in the specification tables which are a regular feature of each issue of MOTOR AGE. The Chrysler is rated at 25.3 hp. and actually develops 75 hp. at 3200 r.p.m., while the Studebaker is rated at 36 hp. and actually develops 85 hp. at 2800 r.p.m. The compression ratio of the Chrysler is 5.1 to 1 while the compression ratio of the Studebaker is 4.5 to 1. Another thing that might have been mentioned is that in general the larger an engine is the less likely it is that it will be run at high speed. For example, the Essex Six is the smallest six-cylinder engine on the American market and has a peak speed of 4000 r.p.m., while the MacFarlan Model TV six has an engine with 4½ in. bore and

6 in. stroke and develops 120 hp. at 2400 r.p.m.

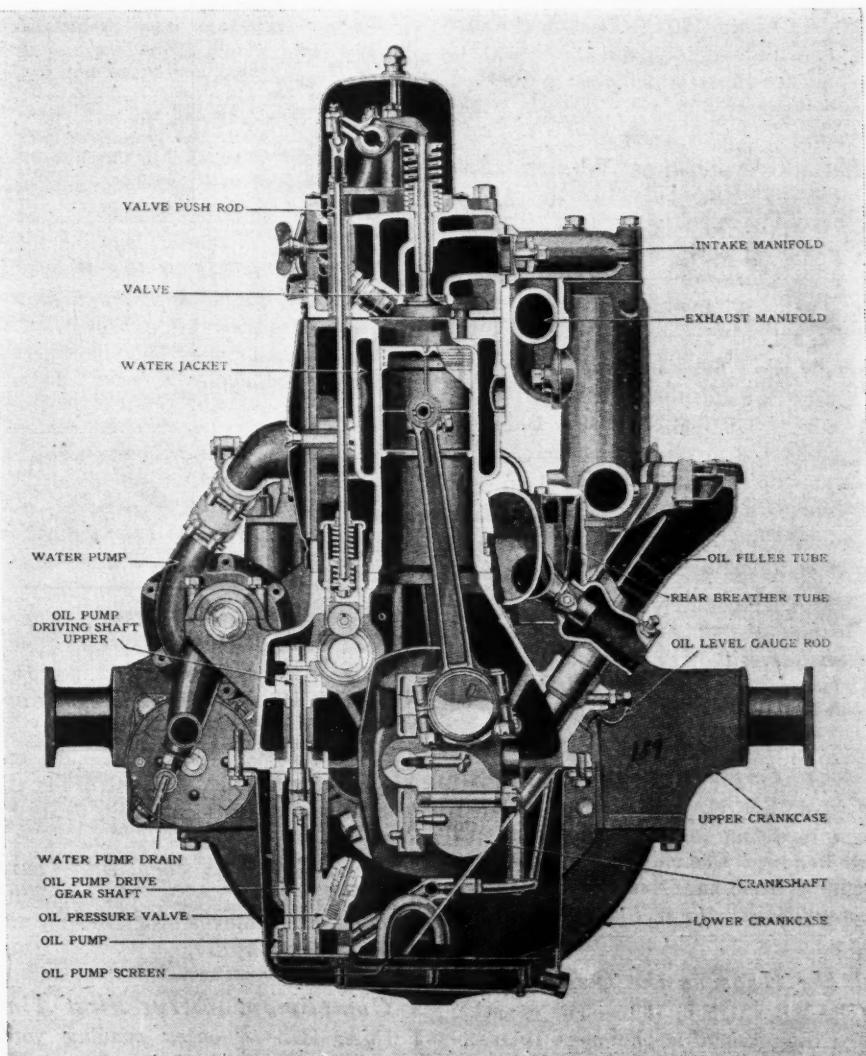
Weak Spring May Cause Peculiar Knock

We have a Buick 1926 model that we are having trouble with. This car has a metallic tap which sounds like a wrist pin knock. At idling speed it is very slight, but as the car speed increases it is very noticeable in the closed body. We replaced the piston pins with .003 oversize lapped pin, checked the rod for alignment both ways, and also the rod and piston assembly. Using a sounding rod on the roller tappet assembly the exhaust tappet sounded very sharp. Upon examination, however, the roller showed less than .003 clearance on the pin. The roller was .0005 out of round. Have rechecked the piston pin assembly in each rod. They are all O.K. with the exception of No. 4, which shows that the pin hole is slightly out of true with the piston. When the rod is in perfect alignment, the assembly shows the piston to be out of alignment .003. Have tried No. 4 with the piston in perfect alignment with the cylinder, but the sound is the same. This noise has been in this car since it came out of the factory. The car has been driven 9000 miles. The cylinder walls are smooth but we did not check the fit of the piston in the bore on

account of the low mileage the car has been driven. We will appreciate any help you can give us, I assure you.—Osterday Bros. Garage, Lamont, Wis., P. O. Darlington, Wis.

WE are showing a cross-sectional view of this engine which you will probably be interested in studying. We are of the opinion that the noise is either caused by a scored condition of the cup or ball at the top of the valve push rod, or by a cocked spring at the lower end of the valve push rod. Sometimes a weak spring at the lower end of the valve push rod results in a very peculiar knock in these engines, due to the lag in returning the push rod. The result is that at high speed the valve push rod is just coming down as the cam is about to push it up, with the result that there is a very peculiar click or metallic knock.

We hope that a careful study of this diagram plus the suggestions that we have given will prove effectual in overcoming the trouble that you have been experiencing.



Cross section of Buick 1926 engine



Keeps Him on Top With Timely Tips

SAN FRANCISCO, CALIF.—I find the MOTOR AGE is very interesting and keeps me tip-top on information all around.—E. P. Filippo.

He Prefers to be Served With Service

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He's For Mechanical Development

LOS ANGELES, CALIF.—I am interested in the new mechanical developments shown in MOTOR AGE.—Harold B. Ross.

No Miss is as Good as a Smile
ST. PAUL, MINN.—I sure would miss MOTOR AGE if I did not get it every week. The Readers' Clearing House is the most interesting feature to me as yet.—A. O. Orscoe.

A Triple Bet With Him

CLARKSON, NEB.—The most interesting features of MOTOR AGE are Readers' Clearing House specifications of cars, and News of the Industry.—Fajman Motor Co.

He Hops on the Questions

CAMP POINT, ILL.—The question department is the most interesting part of MOTOR AGE to us.—Hunters Ford Shop.

LETTERS to the editor from those whose "attention has been called"; from those who point with pride and those who view with alarm, from those who are easy to please and those who are hard to please; from those who are happy when they find a good thing and those who are happier when they find something they consider not so good; from those who boast and those who knock; from those who see the doughnut and those who see the hole; in other words, Dear Subscriber, from you and you and you—as well as from the man who borrows your copy of MOTOR AGE or reads it over your shoulder.

At the Parting of the Ways

RANGER, TEX.—I am sorry that I cannot renew my subscription to MOTOR AGE as I am no longer connected with the automobile business. I have



always liked to read my MOTOR AGE.—W. J. Chalkley.

A Hit With Him and He Wants No Misses

FORT MORGAN, COLO.—I sure enjoy MOTOR AGE and don't like to miss any copies.—Jacob Dill, Jr.

New Stuff is His Meat and Ours
PEORIA, ILL.—New developments featured in MOTOR AGE hold my interest.—Macon Miller.

A Compliment to Our First Aim

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Little Room for Doubt That He Likes M. A.

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CLEVELAND, OHIO—Please note change of my address for MOTOR AGE. Please don't fail me. I need every issue.—Jos. P. Gorg.

Another R.C.H. Booster

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He Likes Trouble

TEHACHOPI, CALIF.—I never fail to look MOTOR AGE through but the trouble department seems to interest me most.—E. C. Kimberly.

He Shall Not Miss

RUTH, NEV.—Send my MOTOR AGE to me at the above address for I do not wish to miss one book if possible.—Frank Mathews.

They Vote for Car Data

CUSTER, S. D.—The most interesting feature of MOTOR AGE is car data.—Carter & Carter.

Prices, Weights and Equipment of Current Passenger Car Models

**Important changes in
Specifications and Price
Tables since last issue:**

DODGE BROS.
Additional Prices

FRANKLIN
Price Changes

MOON Price Changes and New Models

PACKARD 6 Price Reductions

Important changes in Specifications and Price Tables since last issue:							
DODGE BROS. Additional Prices							
FRANKLIN Price Changes							
MOON Price Changes and New Models							
PACKARD 6 Price Reductions							
Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment	Passengers and Model	F.O.B. Price	Doors
AUBURN "76"					CADILLAC "341" "Fisher"	\$3350	2
2-4p. Roadster.	\$1195	3	2980	aghmnrrw	2-4p. Roadster.	24590	4
5p. Touring.	1195	4	3070	aghmnrrw	5p. Phaeton.	44640	4
4p. Cabriolet.	1395	2	3125	aghmnrru	5p. Sp. Phaeton.	5125	4
5p. Sp. Sedan.	1295	4	3300	aghmnru	7p. Touring.	4630	4
5p. Sedan.	1395	4	3300	aghjmnruru	2-4p. Coupe.	2480	2
"88"					2-4p. Conv.Coup.	2465	2
2-4p. Roadster.	1495	3	3265	aghmnrrw	5p. Coupe.	2465	2
2p. Speedster.	1695	2	3245	aghmnrrw	5p. Sedan.	2470	2
5p. Touring.	1495	4	3380	aghmnrrw	5p. Town Sedan.	4880	4
4p. Cabriolet.	1695	2	3410	aghmnrru	5p. Imperial.	4875	4
5p. Sp. Sedan.	1895	4	3600	aghmnrr	5p. Imperial Cab.	4925	4
5p. Sedan.	1695	4	3590	aghjmnruru	7p. Imperial Cab.	5025	4
"115"					"Fleetwood"	4095	4
2-4p. Roadster.	1995	3	3655	aghmnrrw	5p. Sedan.	4995	4
2p. Speedster.	2195	2	3590	aghmnrr	5p. Sedan Cab.	4995	4
5p. Touring.		4			7p. Sedan Cab.	45080	4
4p. Cabriolet.	2195	2	3880	Beghjmnruru	5p. Imperial Cab.	45035	4
5p. Phaeton Sed.	1895	4	3600	aghmnrr	7p. Imperial.	4035	4
5p. Sp. Sedan.	1595	4	3590	aghmnrru	5p. Imperial Cab.	5135	4
5p. Sedan.	1695	4	3590	aghjmnruru	7p. Imperial Cab.	5135	4
"115"					Town Cab Con.	5000	4
2-4p. Roadster.	1995	3	3655	aghmnrrw	Town Cab Con.	5500	4
2p. Speedster.	2195	2	3590	aghmnrr	LimBro'mon.	5500	4
5p. Touring.		4			aghjmnrptx		
4p. Cabriolet.	2195	2	3880	Beghjmnruru			
5p. Phaeton Sed.	2395	4	3990	aghmnrr			
5p. Sp. Sedan.	2095	4	3995	aghjmnruru			
5p. Sedan.	2195	4	3995	aghjmnruru			
"120"							
4p. Coupe.	1465	2	3800	aghmnrr			
5p. Ad. Sedan.	1495	4	3870	aghmnrr			
5p. Town Bro'm.	1575						
"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
4p. Sp. Touring.	1525	4	3735	aghmnrr			
5p. Coupe.	1850	2	3940	aghmnrr			
5p. Sp. Sedan.	1765	4	3905	aghmnrr			
5p. Ad. Sedan.	1925	4	4050	aghmnrr			
5p. Sedan.	1995	4	4115	aghmnrr			
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4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
4p. Sp. Touring.	1525	4	3735	aghmnrr			
5p. Coupe.	1850	2	3940	aghmnrr			
4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
4p. Sp. Touring.	1525	4	3735	aghmnrr			
5p. Coupe.	1850	2	3940	aghmnrr			
4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
4p. Sp. Touring.	1525	4	3735	aghmnrr			
5p. Coupe.	1850	2	3940	aghmnrr			
4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
4p. Sp. Touring.	1525	4	3735	aghmnrr			
5p. Coupe.	1850	2	3940	aghmnrr			
4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
4p. Sp. Touring.	1525	4	3735	aghmnrr			
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4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
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4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
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"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
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4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
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4p. Sp. Touring.	1525	4	3735	aghmnrr			
5p. Coupe.	1850	2	3940	aghmnrr			
4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
4p. Sp. Touring.	1525	4	3735	aghmnrr			
5p. Coupe.	1850	2	3940	aghmnrr			
4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
4p. Sp. Touring.	1525	4	3735	aghmnrr			
5p. Coupe.	1850	2	3940	aghmnrr			
4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4	4050	aghmnrr			
7p. Sedan.	1995	4	4115	aghmnrr			
"128"							
2-4p. Sp. Rdster.	1495	2	3655	aghmnrr			
4p. Sp. Touring.	1525	4	3735	aghmnrr			
5p. Coupe.	1850	2	3940	aghmnrr			
4p. Ctry. Club.	1765	4	3905	aghmnrr			
5p. Bro. Sedan.	1925	4					

KEY TO SYMBOLS

- *—Italic figures denote shipping weight.

A—Wood wheels with spare.
 a—Wood wheels.
 B—Wire wheels with spare.
 b—Wire wheels.
 C—Optional wheels with spare.

- c—Type of wheels optional.
- D—Disk wheels with spare.
- d—Disk wheels.
- e—Front and rear bumpers.
- f—Front bumper.
- g—Shock absorbers or snubbers.
- h—Automatic windshield wiper.

KEY TO SYMBOLS

- i—Trunk and trunk rack.
- j—Trunk rack, no trunk.
- k—Spare tire.
- l—Spare tire lock.
- m—Engine heat indicator.
- n—Dash gasoline gage.

- Car heater.
- Cigar lighter.
- Rear traffic signal.
- Spotlight.
- Vanity and smoking set.
- Smoking set.

v—Vanity set.
 w—Windshield wings.
 x—Clock.
 †—Overall length.
 \$—Prices on application.

Prices, Weights and Equipment of Current Passenger Car Models

Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment																	
4-5p. Vic. Bro'm.	\$2760	3550		aeghiklnprx	5p. Sedan.....	\$1395	4	3010	aghnr	5p. Sp. Phaeton.	\$2975	4	4170	Beghjkmpnpxrsx	"TVS"																					
5p. Sedan.	2790	3580		aeghiklnprtx	2p. Cabriolet.	1435		2820		2p. Bus. Coupe..	2350		3930	aeghilmnprrtx	2p. Roadster.	\$5800	2	4300	aeghilmprx																	
5p. Ox. Sedan..	2750	3580		aeghiklnprtx	2-4p. Cabriolet.	1475		2965	aghnr	5p. Family Sedan.	2350		4090	aeghilmnprrtx	5p. Spt. Tour.	5600	4	4700	aeghilmprx																	
5p. Spt. Sedan.	2910	3630		aeghiklnprtx	"Century 125-8"					2-4p. Coupe..	2450		2395	aeghilmnprrtx	7p. Touring.	5700	4	4700	aeghilmprx																	
3-5p. Con't Cpe.	2850	3510		aeghiklnprtx	5p. Touring.....	1795	4	3300	aghnvx	4p. Victoria..	2550		2390	aeghilmnprrvx	5p. Sedan.	6720	4	5200	aeghilmprx																	
128" W.B.					7p. Touring.....	1895	4	3350	aghnvx	5p. Town Sedan.	2495	4	4065	aeghilmprx	7p. Sedan.	6720	4	5200	aeghilmprx																	
2-4p. Sp. Runab't.	2975	3440		aeghiklnprx	5p. Brougham.	2095	2	3515	aghnvx	5p. Sedan.....	2495	4	4090	aeghilmnprrtx	7p. Towa Car.	9000	4	5200	aeghilmprx																	
5p. Sp. Touring..	2975	3530		aeghiklnprx	2-4p. Coupe..	2195	2	3465	aghnvx	5p. Trans. Cab.	4500	4																								
5p. Touring.....	3060	3620		aeghiklnprtx	5p. Sedan.....	2195	4	3545	aghnvx	5p. Sedan Lim.	2520	4	3360	aghnvx																						
7p. Sedan.	2980	3790		aeghiklnprtx	5p. Victoria.....	2195	2	3525	aghnvx																											
7p. Ox. Sedan..	2980	3790		aeghiklnprtx	7p. Sedan.....	2345	4	3360	aghnvx																											
7p. Limousine..	3080	3860		aeghiklnprtx	7p. Sedan Lim.	2520	4	3360	aghnvx																											
GARDNER "75 Std."																																				
4p. Roadster....	\$1195	2	2995	ahmnr	5p. Phaeton.....	1905		3285	aghmnv	5p. Family Sedan.	2575		4345	aeghlmnprrtx	2p. Roadster.	\$5800	2	4300	ahmnrw																	
5p. Sp. Coupe....	1295	2	3290	aeghjmnr	2-4p. Sportster.	1915		3335	aghmnv	4p. Coue.	2625			aeghlmnprrtx	5p. Sedan.	1395	4	2897	ahmnr																	
4p. Vic. Coupe..	1295	2	3290	aeghjmnr	7p. Phaeton.	1935		3355	aghmnv	5p. Cab. Sedan.	2675			aeghlmnprrtx	4p. Vic. Coupe..	1450	2	2867	aeghjmnr																	
5p. Club Sedan..	1390	4	3265	aeghmr	5p. Sedan. 2d..	1825	2	3385	aghmnv	5p. Imp. Sedan.	2775	4	4315	aeghlmnprrtx	5p. Sedan.	1395	2	2827	ahmnr																	
5p. Std. Sedan..	1495	4	3330	aeghmr	5p. Selan. 4d..	1875	4	3455	aghmnv	7p. Imp. Sedan.	2875	4	4570	aeghlmnprrtx																						
"75 Del."																																				
4p. Roadster....	1295	2	2995	aeghmr	2-4p. Cabriolet.	1955		3345	aghmnv	JORDAN "Cross C'ty 6"																										
5p. Sp. Coupe....	1395	2	3290	aeghjmnr	"Cross C'ty 6"																															
4p. Vic. Coupe..	1395	2	3290	aeghjmnr	4p. Blue Boy..	\$1495	4	2800	Beghkmnrx	4p. Spt. Rdstr.	\$4600	2	4930	aeghiklnpx	2p. Roadster.	\$3007																				
5p. Club Sedan..	1490	4	3265	aeghmr	4p. Spt. Salon..	1295	2	2775	aghjmnrx	4p. Club Rdstr.	4600		5010	aeghiklnpx	4p. Speedster.	4052																				
5p. Del. Sedan..	1595	4	3400	aeghmr	2-4p. Tomboy..	1395	2	2650	aeghmr	4p. Spt. Touring.	4600		4940	aeghiklnpx	4p. Collap. Cpe..	2987																				
"85"																																				
4p. Roadster....	1695	2	3040	aeghmr	5p. Sedan.....	1395	4	2775	aghmnrtx	4p. Coupe.....	4800	4	5010	aeghiklnpx	2-4p. Coupe..	2425																				
5p. Brougham..	1875	4	3360	aeghjmnr	5p. Sedan. 2d..	1825	2	3385	aghmnv	4p. Spt. Phaeton.	4600		4910	aeghiklnpx	4p. Vic. Coupe..	4035																				
5p. Sedan....	1895	4	3380	aeghmr	5p. Sedan.....	1895	4	3200	aghmnrtx	4p. Spt. Rdstr.	4600		4940	aeghiklnpx	4p. Speedster.	4256																				
"95"																																				
2-4p. Roadster..	2095	3440		aeghmnprx	5p. Sedan.....	1895	2	3200	aghmnrtx	4p. Collap. Cpe..	2875	4	4570	aeghlmnprrtx	2-4p. Coupe..	2407																				
2-4p. Collap. Cpe..	2495	3625		aeghmnprx	5p. Sedan.....	1995	2	3185	aghmnrtx	4p. Cpe. Rdstr..	2095	2	3155	aeghjmnr	4p. Vic. Coupe..	1405	2	2867	aeghjmnr																	
5p. Brougham..	2275	4	3750	aeghmnprx	5p. Sedan.....	1995	4	3185	aghmnrtx	5p. Sedan. 4d..	1875	4	3455	aghmnv	5p. Sedan.	1395	4	2897	aeghjmnr																	
5p. Sedan....	2295	4	3790	aeghmnprx	5p. Victoria.....	1995	2	3275	aghmnrtx	5p. Sedan Lim.	2520	4	3300	aghmnrtx	5p. Sedan.	1395	4	2827	ahmnr																	
GRAHAM-PAGE "610"																																				
2p. Coupe....	\$860	2	2625	aghmn	5p. Bro'm Sedan.	1495	4	2915	ahmnr	5p. Victoria.....	1595		2990	aeghlmnprrtx	5p. Roy. Cab.	2575																				
5p. Sedan....	875	4	2825	aghmn	5p. Sedan.....	1595				5p. Sedan.....	1595		3005	aeghlmnprrtx	5p. Coach.	2420																				
"614"																																				
4p. Coupe....	1275	2	2334	aghmn	5p. Sedan.....	1595				5p. Sedan.....	1595		3005	aeghlmnprrtx	5p. Vic. Sedan.	2520																				
"619"																																				
4p. Coupe....	1575	2	3825	aeghjmrtx	5p. Phaeton.....	1885	4	3240	ahmnr	5p. Sedan.....	1895	2	3155	aeghlmnprrtx	5p. Sedan.	2370																				
5p. Sedan....	1595	4	3950	aeghjmrtx	4p. Speedster..	2095	2	3155	ahmnr	5p. Sedan.....	1905	2	3143	aeghlmnprrtx	5p. Sedan.	2370																				
"629"																																				
5p. Sedan....	1985	4	4250	Deghjlmnp rtx	4p. Cpe. Rdstr..	1995				5p. Sedan.....	1995	2	3400	aeghlmnprrtx	5p. Sedan.	2370																				
5p. Town Sedan..	2085	4	4150	Deghjlmnp rtx	5p. Bro'm Sedan.	2095	4	3455	aeghlmnprrtx	5p. Conv. Bro'm	2495	4	3518	aeghlmnprrtx	5p. Sedan.	2370																				
"632"																																				
7p. Sedan....	2110	4	4375	Deghjlmnp rtx	5p. Sedan.....	2195	4	3455	aeghlmnprrtx	5p. Sedan.....	2195	4	3630	aeghlmnprrtx	5p. Sedan.	2370																				
2-4p. Cabriolet..	2185	2	4140	e	5p. Sedan....	2195	4	3455	aeghlmnprrtx	5p. Sedan.....	2195	4	3630	aeghlmnprrtx	5p. Sedan.	2370																				
2-4p. Coupe....	2185	2	4140	e	4p. Victoria....	1995				5p. Sedan.....	2195	4	3320	aeghlmnprrtx	5p. Sedan.	2370																				
"835"																																				
5p. Sedan....	2285	4	4425	Deghjlmnp rtx	4p. Spt. Rdstr..	1995				5p. Sedan.....	2195	4	3350	aeghlmnprrtx	5p. Sedan.	2370																				
5p. Town Sedan..	2385	4	4525	Deghjlmnp rtx	5p. Sedan.....	2195	2	3671	aeghlmnprrtx	5p. Sedan.....	2195	4	3320	aeghlmnprrtx	5p. Sedan.	2370																				
7p. Sedan....	2410	4	4550	Deghjlmnp rtx	5p. Sedan.....	2195	2	3671	aeghlmnprrtx	5p. Sedan.....	2195	4	3320	aeghlmnprrtx	5p. Sedan.	2370																				
2-4p. Cabriolet..	2485	2	4270	Deghjlmnp rtx	5p. Sedan.....	2195	2	3671	aeghlmnprrtx	5p. Sedan.....	2195	4	3320	aeghlmnprrtx	5p. Sedan.	2370																				
2-4p. Coupe....	2485	2	4270	Deghjlmnp rtx	5p. Sedan.....	2195	4	3671	aeghlmnprrtx	5p. Sedan.....	2195	4	3671	aeghlmnprrtx	5p. Sedan.	2370																				
"839"																																				
5p. Sedan....	2410	4	4550	Deghjlmnp rtx																																

KEY TO SYMBOLS

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A—Wood wheels with spare.

a—Wood wheels.

B—Wire wheels with spare.
C—Wire wheels.

C—Optional wheels with spare.

c—Type of wheels optional.
D—Disk wheels with spare.

D—Disk wheels
d—Disk wheels

e—Front and rear bumpers.
f—Fenders.

f—Front bumper.
g—Shock absorbers or snubbers.

g—Shock absorbers or snubbers.
h—Automatic windshield wiper.

—Trunk and trunk rack.
—Trunk rack, no trunk.

—Trunk rack, no trunk.
■—Spare tire.

I—Spare tire lock.

m—Engine heat indicator
n—Dash gasoline gauge

n—Dash gasoline gage.

—Car heated

—Car heater.
—Cigar lighter.

r—Rear traffic signal.

s—Spotlight.
t—Vanity and smoking.

u—Smoking set.

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—Vanitū set

v—Vanity set.
w—Windshield wings

—Clock.
—Overall length.

—Overall length.
—Prices on application.

3—1 lives on application.

an adult male.

Prices, Weights and Equipment of Current Passenger Car Models

Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Net Weight*	Standard Equipment
4p. Sp. Rdster...	\$1075	2	2730	aehjn	"8-69"					"8-88"				
24p. Cabriolet...	1155	2	2825	ahm	126" W.B.					5p. Tourer...	\$2495	4	3650	cg
5p. 2d. Sedan...	1045	2	2890	aehnu	5p. Coupe...	\$2345	..	3905	Deghlmnrtx	24p. Roadster...	2750	4	3540	
3p. Land. Coupe...	1045	2	2805	ahm	133½ W.B.					2p. Speedster...	2985	2	2875	cg
5p. 4d. Sedan...	1145	4	2980	aehnu	24p. Roadster...	2245	2	3710	Deghlmnrtwx	5p. Sedan...	2985	4	3890	cg
5p. Land. Sedan...	1265	4	3050	aehnu	5p. Sedan...	2345	4	3875	Deghlmnrtx	7p. Sedan...	3285	4	3980	cg
OLDSMOBILE "F-28"					7p. Limousine...	2645	4	4200	Deghlmartx					
. Sp. Roadster...	\$995		2650	ceghmnrt	PIERCE-ARROW "81"					ROLLS ROYCE "Si. Ghos"				
5p. Sp. Touring...	995		2640	ceghmnrt	2p. Runabout...	\$2900	2	3350	afghlmnrx	Open Models...				
2p. Coupe...	925		2650	aeghmnrt	4p. Touring...	3100	4	3365	afghlmnrx	Closed Models...				
5p. Sedan, 2d...	925	2	2785	ceghmnrt	7p. Touring...	3100	4	3500	afghlmnrx	"New Phan"				
24p. Spt. Coupe...	995	2	2860	ceghmnrt	5p. Club Bro'm...	2750	2	3540	afghlmnprt	Open Models...				
5p. Sedan, 4d...	1025	4	2860	ceghmnrt	2p. Coupe metal...	3250	2	3460	afghlmnprt	Closed Models...				
5p. Landau Sed...	1085	4	2855	ceghmnrv	2p. Coupe leather...	3250	2	3540	afghlmnprt					
OVERLAND "4" Whippet					2p. Coupe leath...	3250	2	3490	afghlmnprt	STEARNS-KNIGHT "6"				
5p. Touring...	\$455	4	1985	agr	5p. Club Sedan...	3300	4	3635	afghlmnprt	126" W.B.				
24p. Roadster...	525	2	1932	agr	24p. Coupe met...	3350	2	3530	afghlmnprt	2p. Cab. Rdstr...	\$2495			
2p. Coupe...	535	2	2060	aghrr	5p. Sedan...	3350	4	3605	afghlmnprt	5p. C.C. Sedan...	2495			
24p. Coupe Cap...	545	2	2122	aghrr	24p. Coupe lea...	3350	2	3560	afghlmnprt	5p. Sedan...	2495			
5p. Coach...	535	2	2160	aghrr	2p. Con't Cpe...	3350	4	3455	afghlmnprt	134" W.B.				
5p. Sedan...	585	4	2210	aghrr	5p. Club. Land...	3400	4	3640	afghlmnprt	5p. Coupe...	2645			
"4" Whippet					7p. Sedan...	3450	4	3700	afghlmnprt	7p. Sedan...	2845			
24p. Roadster...	685	2	2228	agr	7p. Sedan...	3450	2	3490	afghlmnprt	7p. Limousine...	2945			
5p. Touring...	615	4	2240	agr	4p. Cab. Rdstr...	\$3250	2	4252	aeghklmnpr	"F-6-85"				
24p. Coupe...	695	2	2356	aghrr	4p. Touring...	3250	4	4322	aeghklmnpr	4p. Roadster...	\$3250			
5p. Coach...	695	2	2423	aghrr	5p. Sedan Lim...	3550	4	3755	afghlmnprt	5p. Cab. Rdstr...	3550	2	4500	aeghklmnopr
5p. Sedan...	745	4	2484	aghrr	5p. Opera Bro'm...	3800	4	3755	afghlmnprt	5p. Cus. Sedan...	3350	4	4562	aeghklmnmo
PACKARD "526"					2p. Runabout...	5875	2	4560	afghlrx	4p. Coupe...	3450	2	4527	aeghklmnro
4p. Runabout...	\$1975	2	3620	Deghlmnpx	4p. Touring...	5875	4	4510	afghlrx	4p. Coupe...	3450	2	4527	aeghklmnmo
5p. Phaeton...	1975	4	3665	Deghlmnpx	7p. Touring...	5875	4	4585	afghlrx	5p. Std. Sedan...	3450	4	4572	aeghklmnmo
5p. Sedan...	1985	4	4000	Deghlmnprt	7p. Sedan...	5875	4	4815	afghlrx	5p. Sedan Lim...	3700	4	4647	aeghklmnmo
24p. Coupe...	2050	2	3950		7p. Lim. Encl...	5875	4	4870	afghlrx	5p. Sedan Lim...	3700	4	4647	aeghklmnmo
4p. Conv't Cpe...	2125	2	3875		3p. Coupe...	6375	2	4760	afghlrx	5p. Cus. Sedan...	3350	4	4562	aeghklmnmo
"533"					4p. Cpe. Sedan...	6375	2	4795	afghlrx	4p. Coupe...	3450	2	4527	aeghklmnmo
5p. Phaeton...	2085	4	3745		4p. Sedan...	6375	4	4830	afghlrx	5p. Sedan...	4120	2	4300	aeghklmnpr
4p. Runabout...	2085	2	3700		7p. Enc. Dr. Lan...	6000	4	4895	afghlrx	4p. Sedan...	4120	2	4300	aeghklmnpr
7p. Touring...	2185	4	3865	Deghlmnpx	7p. Sedan Land...	6000	4	4840	afghlrx	5p. Landau Sed...	4120	4	4300	aeghklmnpr
4p. Coupe...	2385	2	4000	Deghlmnpx	4p. Lim. Encl...	6375	4	4880	afghlrx	5p. Sedan...	4420	4	4300	aeghklmnpr
5p. Club. Sedan...	2385	4	4085	Deghlmnprt	4p. C. C. Sedan...	6475	4	4805	afghlrx	5p. Sedan...	4495	4	4300	aeghklmnpr
7p. Sedan...	2385	4	4145	Deghlmnprt	2p. Coupe...	6600	2	4745	afghlrx	5p. Sedan...	4545	4	4300	aeghklmnpr
7p. Sedan Lim...	2485	4	4205	Deghlmnprt	4p. Sedan Land...	6600	4	4800	afghlrx	7p. Sedan...	4745	4	4300	aeghklmnpr
"443"					4p. Enc. Dr. Land...	6600	4	4880	afghlrx	7p. Limousine...	4995	4	4778	aeghklmnpr
4p. Runabout...	3875	2	4350	Djk	7p. Fr. Limou...	7500	4	4740	afghlrx	7p. Landau Lim...	5295	4	4778	aeghklmnpr
5p. Phaeton...	3875	4	4370	Djk	7p. Fr. Landau...	8000	4	4865	afghlrx	"Salon Cus."				
7p. Touring...	3975	4	4410	Deghklmnp					5p. PW Sedan...	6345	4		aeghilmnpr	
2p. Coupe...	4150	2		rx					5p. PW Sedan...	6345	4	5014	aeghilmnprt	
2p. Conv't Cpe...	4250	2							7p. Con. T'N Car	6895	4	5044	aeghilmnprt	
4p. Coupe...	4450	2	4635	Djk	PLYMOUTH									
5p. Club. Sedan...	4450	4	4710	Deghklmnp	24p. Roadster...	\$670	4	2160	ab	7p. Touring...	5500	4	4872	aeghlmnpx
7p. Sedan...	4450	4	4820	Deghklmnp	5p. Touring...	695	4	2255	ab	7p. Sedan...	5600	4	5167	aeghlmnpx
7p. Sedan Lim...	4550	4	4860	Deghklmnp	2p. Coupe...	670	2	2295	ab	7p. Limousine...	5800	4	5217	aeghlmnpx
"Std. 8"					5p. Sedan 2d...	690	2	2435	ab	7p. Town Cab...	5800	4	5217	aeghlmnpx
7p. Touring...	3550	4			24p. Del. Coup...	720	2			7p. Town Bro'm...	5800	4	5217	aeghlmnpx
5p. Phaeton...	3650	4			5p. Sedan 4d...	725	4	2460	ab					
2p. Coupe...	3550	2			PONTIAC "6"					REO "Flying Cloud"				
4p. Conv't Coupe...	3650	2			24p. Roadster...	\$745	2	2270	ahn	4p. Cabriolet...	4550	2	2471	aeghlmnpx
4p. Coupe...	3750	2			5p. Sp. Phaeton...	745	2	2435	ahn	4p. Coupe...	4550	2	2482	aeghlmnpx
5p. Club. Sedan...	3750	4			5p. Sedan...	745	2	2520	ahn	5p. Sedan...	4650	4	4934	aeghklmnmo
7p. Sedan...	3750	4			5p. Sp. Sedan...	825	4	2595	ahn	7p. Sedan...	4750	4	5027	aeghklmnmo
"6-80"					5p. Sp. Landau...	875	4	2640	ahn	5p. Sedan Lim...	4850	4	5009	aeghklmnmo
5p. Phaeton...	1295	4	2975	Deghlmnrx					7p. Limousine...	5250	4	5102	aeghklmnmo	
24p. Roadster...	1295	2	2975	Deghlmnrx					7p. Sedan...	5250	4	5102	aeghklmnmo	
24p. Coupe...	1395	2	3100	Deghlmnr					7p. Sedan...	5250	4	5102	aeghklmnmo	
5p. Brougham...	1195	4	2775	Deghlmnr					7p. Sedan...	5250	4	5102	aeghklmnmo	
5p. Sedan...	1195	4	2850	Deghlmnr					7p. Sedan...	5250	4	5102	aeghklmnmo	
5p. Sedan...	1295	4	2905	Deghlmnr					7p. Sedan...	5250	4	5102	aeghklmnmo	
"6-91"														
24p. Coupe...	1895	3	3225	Deghlmnrtx	ROAMER "8-78"									
5p. Sedan...	1895	4	3355	Deghlmnrtx	24p. Roadster...	\$1595	2	3450						
4p. Victoria...	1895	3	3240	Deghlmnrtx	2p. Coupe...	1895	2	3225						
128" W.B.					5p. Sedan...	1795	2	3380						
7p. Sedan...	1995	4	3420	Deghlmnrtx										
"8-80"														
5p. Sedan...	1295	2	2975	Deghlmnrtx	"8-80"									
24p. Roadster...	1295	2	2975	Deghlmnrtx	2p. Roadster...	1895	2	3310						
24p. Coupe...	1395	2	3100	Deghlmnrtx	2p. Coupe...	1895	2	3410	ag					
5p. Sedan...	1395	2	3050	Deghlmnrtx	2p. Brougham...	1895	2	3440	ag					
5p. Sedan...	1395	4	3210	Deghlmnrtx	5p. Sedan...	1895	4	3570	ag					
"6-91"														
24p. Coupe...	1895	3	3225	Deghlmnrtx										
4p. Victoria...	1895	4	3355	Deghlmnrtx										
5p. Sedan...	1895	3	3240	Deghlmnrtx										
7p. Sedan...	1995	4	3420	Deghlmnrtx										

KEY TO SYMBOLS

*—Italic figures denote shipping weight.

A—Wood wheels with spare.

B—Wood wheels.

C—Wire wheels with spare.

D—Wire wheels.

E—Optional wheels with spare.

e—Type of wheels optional.

D—Disk wheels with spare.

d—Disk wheels.

e—Front and rear bumpers.

f—Front bumper.

g—Shock absorbers or snubbers.

h—Automatic windshield wiper.

i—Trunk and trunk rack.

j—Trunk rack, no trunk.

k—Spare tire.

l—Spare tire lock.

m—Engine heat indicator.

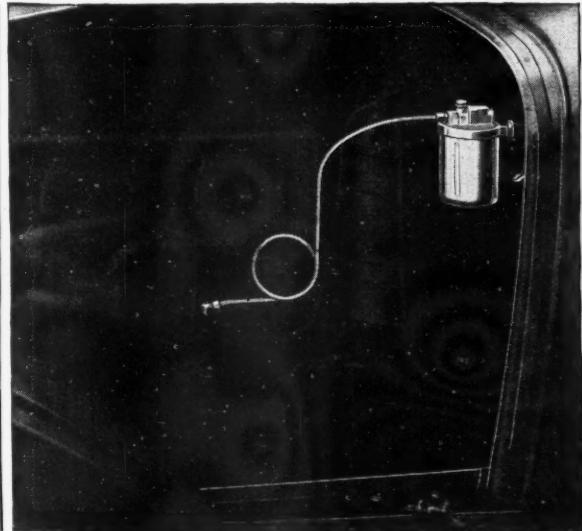
n—Dash gasoline gage.

Mechanical Specifications of Current Passenger Car Models

This list comprises current cars distributed on a national basis only. Data for previous models back to 1980 will be found in the Chilton Catalog and Directory.

KEY OF SYMBOLS

If you've given up in Despair...
.. waiting for an accessory that gives you wide open money-making possibilities



... Your Day has Come

THE Decro-oiler does what you have always known should be done—it takes lubrication to the upper cylinder walls, pistons and valves—right where motors never have had adequate lubrication—right where lubrication is needed most.

The demand for the Decro-oiler is growing by leaps and bounds because motorists are rapidly recognizing it as a necessity for maximum motor efficiency. And the trade is getting behind this demand because it not only throws wide open new money-making possibilities for today, but the future as well.

Decro-oil—the original green oil for combustion-chamber lubrication—is sold through the same straight line channels as the Decro-oiler. Thus every Decro-oiler you sell guarantees you repeat business.

If you will use the coupon you will get full facts and figures without any obligation.

DECRO OILER

DECROW AUTOMOTIVE SPECIALTIES, INC., Lockport, New York

Please send me full information about the money-making possibilities the Decro-oiler opens up for me.

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Business

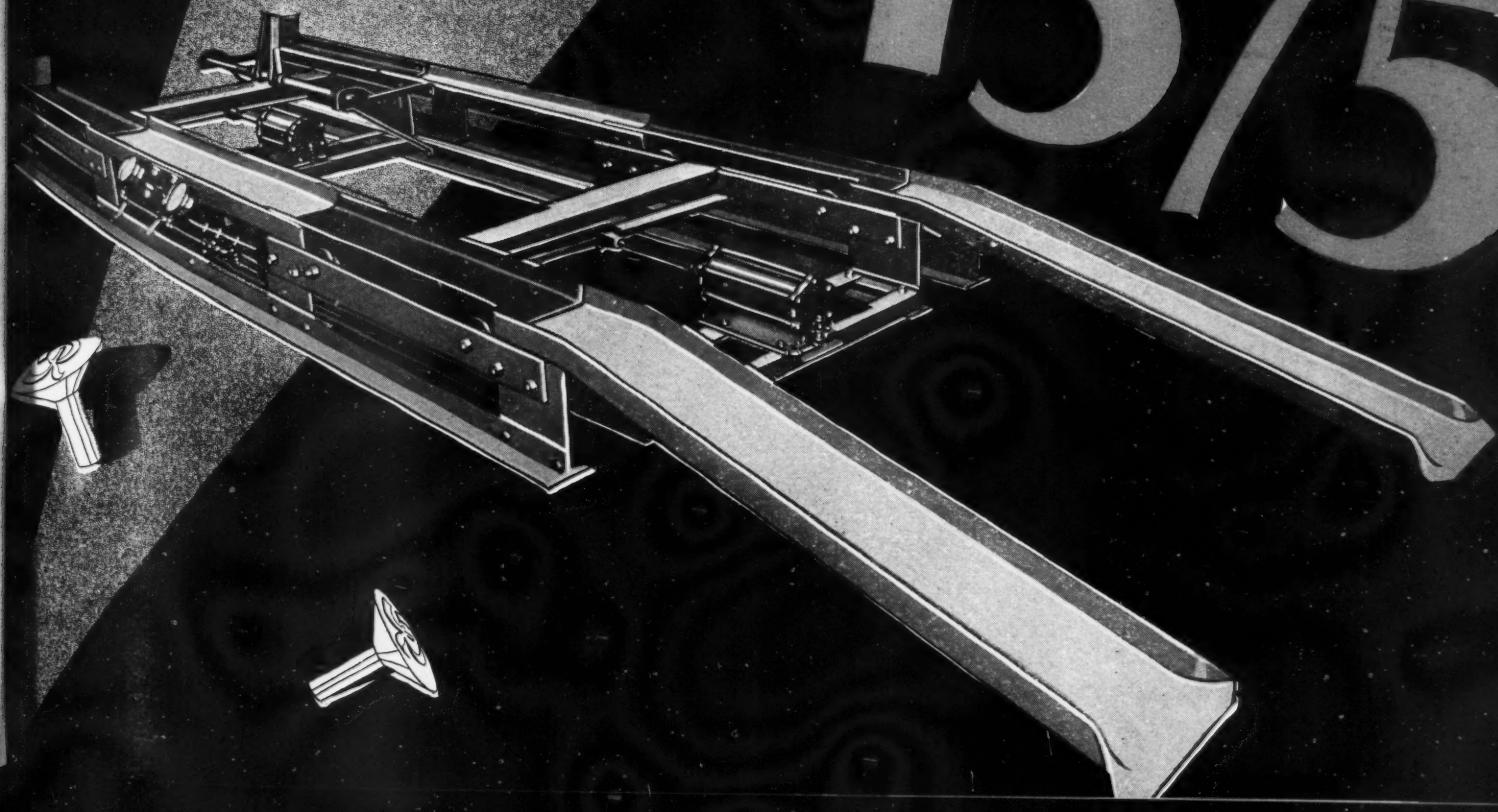
Address.....

Mechanical Specifications of Current Passenger Car Models—Continued

MAKE AND MODEL	TRIM LINE	WHEEL BASE	MODEL AND NAME	ENGINE	ELECTRICAL SYSTEM				REAR AXLE				BRAKES		STEERING GEAR—MADE				CARRIAGE LUBRICANTS				
					CYLINDER AND MAKE	SPARK PLUG AND MAKE	GEAR SET—MAKE	GEAR RATIO	SOFT-TYPE AND MAKE	SOFT-TYPE AND MAKE	4-WHEEL DRIVE AND GEAR TYPE AND MAKE	4-WHEEL DRIVE AND GEAR TYPE AND MAKE	REAR AXLE	GEAR RATIO	GEAR RATIO	GEAR RATIO	GEAR RATIO	GEAR RATIO	GEAR RATIO	GEAR RATIO	GEAR RATIO	GEAR RATIO	GEAR RATIO
Kissel.....8-90	125-132	31x6.30	Own.	80-27-3/4x4	26.5	246 L.	89-3200 5.15 Ch.	Alb.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	m-Mee.	1/4 Col...	5.1 E.F.	F.T.	H...	Ross.	S-60.	Al.
Kissel.....8-90	131-139	30x6.75	Own.	80-27-3/4x4	26.5	246 L.	89-3200 5.15 Ch.	Alb.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	m-Mee.	1/4 Tim...	4.89 E.F.	E.T.	M...	Ross.	S-58.	Al.
Kissel.....8-90	125-134	31x6.00	Own.	8-3-1/2x4	26.5	246 L.	80-3000 4.8 Ch.	Nl.	3 N.	PA.	Y. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.55 E.F.	I-R.	M...	Jas.	S-58.	Al.	
Kissel.....8-90	136	31x6.75	Own.	8-3-1/2x4	26.5	246 L.	80-3000 4.8 Ch.	Nl.	3 N.	PA.	Y. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.55 E.F.	I-R.	M...	Jas.	S-58.	Al.	
Lincoln.....8	122	31x6.00	Con.	8-2-3/4x4	26.4	247 L.	105-3000 5.1 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.55 E.F.	I-R.	M...	Jas.	S-58.	Al.	
Lincoln.....8-70	122	31x6.00	Lyc.	8-3-1/2x4	26.4	247 L.	90-3000 5.0 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.61 E.F.	I-R.	M...	Jas.	S-58.	Al.	
Lincoln.....8-70	130	32x6.75	Own.	8-2-3/4x4	26.4	247 L.	90-3000 5.0 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	3.50 E.F.	I-R.	M...	Jas.	S-58.	Al.	
Lincoln.....8-70	142	32x6.75	Own.	8-2-3/4x4	26.5	247 L.	90-3000 5.0 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	3.50 E.F.	I-R.	M...	Jas.	S-58.	Al.	
Lincoln.....8-70	135	32x6.75	Own.	8-2-3/4x4	26.5	247 L.	90-3000 5.0 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	3.50 E.F.	I-R.	M...	Jas.	S-58.	Al.	
Lincoln.....8-70	120	29x5.50	Own.	8-2-3/4x4	26.5	247 L.	72-3200 5.25 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	3.50 E.F.	I-R.	M...	Jas.	S-58.	Al.	
Marmon.....68	114	29x5.25	Own.	8-2-3/4x4	26.6	217 L.	86-3400 5.5 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.90 E.F.	I-R.	M...	Ross.	S-56.	Al.	
Marmon.....78	120	28x5.75	Own.	8-2-3/4x4	26.6	217 L.	75-2800 4.34 Ch.	CL	3 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	Var.	4.75 E.F.	I-R.	M...	Ross.	T-45.	Al.
McFarlan.....St. 8	131-136	32x6.75	Own.	8-3-1/2x4	26.6	217 L.	75-2800 4.34 Ch.	CL	3 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	5.10 E.F.	I-R.	M...	Ross.	S-58.	Al.	
McFarlan.....TV6	141	32x6.75	Own.	TV 6-4-2/6	48.6	573 L.	120-2400 1.5 He.	Al.	4 N.	PA.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	3.55 E.F.	I-R.	M...	Ross.	S-64.	Am.	
Mona.....Series A	113	29x5.25	Own.	6-3-1/2x4	23	196 L.	50-2600 4.65 Ch.	Cl.	4 N.	PC.	F. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.80 E.F.	I-R.	M...	Ross.	S-54.	Al.	
Mona.....Series A	110	29x5.25	Own.	6-3-1/2x4	23	196 L.	477-2600 4.78 Ch.	Cl.	4 N.	PC.	F. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.80 E.F.	I-R.	M...	Ross.	S-54.	Al.	
Oakland.....AA-6	117	29x5.25	Own.	6-3-1/2x4	23	196 L.	477-2600 4.78 Ch.	Cl.	4 N.	PC.	F. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.80 E.F.	I-R.	M...	Ross.	S-54.	Al.	
Oakland.....F-28	113-16	29x5.25	Own.	6-3-1/2x4	23	196 L.	477-2600 4.78 Ch.	Cl.	4 N.	PC.	F. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.80 E.F.	I-R.	M...	Ross.	S-54.	Al.	
Overside.....(4)	100-14	28x4.75	Own.	96-1-3/2x4	27	3	134 L.	66-3150 4.94 Ch.	Al.	5 Y.	PG.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.63 E.F.	I-R.	M...	Ross.	S-54.	Al.
Overside.....(6)	100-14	28x4.75	Own.	96-1-3/2x4	27	3	134 L.	66-3150 4.94 Ch.	Al.	5 Y.	PG.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.63 E.F.	I-R.	M...	Ross.	S-54.	Al.
Packard.....Std. Six	112	31x6.00	Own.	32-1-3/2x4	23	184 L.	52-3500 5.0 He.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Dot.	S-56.	Al.	
Nash.....Advanced	121-130	32x6.00	Own.	32-1-3/2x4	23	184 L.	75-2800 5.0 He.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Dot.	S-56.	Al.	
Nash.....Special	116	29x5.50	Own.	32-1-3/2x4	23	184 L.	75-2800 5.0 He.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Dot.	S-56.	Al.	
Oakland.....AA-C	117	29x5.25	Own.	32-1-3/2x4	23	184 L.	75-2800 5.0 He.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Dot.	S-56.	Al.	
Oakland.....AA-C	117	29x5.25	Own.	32-1-3/2x4	23	184 L.	75-2800 5.0 He.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Dot.	S-56.	Al.	
Pearless.....6-80	116	29x5.25	Own.	10-6-3-1/2x4	25	3	212 L.	60-2800 4.8 Ch.	Al.	4 N.	PA.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Pearless.....6-80	116	29x5.25	Own.	10-6-3-1/2x4	25	3	212 L.	60-2800 4.8 Ch.	Al.	4 N.	PA.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Pearless.....6-89	116	29x5.25	Own.	10-6-3-1/2x4	25	3	212 L.	60-2800 4.8 Ch.	Al.	4 N.	PA.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Pearless.....6-91	120-128	33x6.00	Own.	90-3-1/2x5	29	4	280 L.	82-3200 4.44 Ch.	Al.	7 N.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.39 E.F.	I-R.	M...	Ross.	S-54.	Al.
Pierce-Arrow.....36	128	32x6.00	Own.	6-3-1/2x4	29	4	280 L.	82-3200 4.44 Ch.	Al.	7 N.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.39 E.F.	I-R.	M...	Ross.	S-54.	Al.
Pierce-Arrow.....533	133	32x6.75	Own.	6-3-1/2x4	29	4	280 L.	82-3200 4.44 Ch.	Al.	7 N.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.39 E.F.	I-R.	M...	Ross.	S-54.	Al.
Packard.....St. 8	143	32x6.75	Own.	6-3-1/2x4	29	4	280 L.	82-3200 4.44 Ch.	Al.	7 N.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.39 E.F.	I-R.	M...	Ross.	S-54.	Al.
Packard.....St. 8	143	32x6.75	Own.	6-3-1/2x4	29	4	280 L.	82-3200 4.44 Ch.	Al.	7 N.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.39 E.F.	I-R.	M...	Ross.	S-54.	Al.
Pontiac.....6-60	116	29x5.25	Own.	10-6-3-1/2x4	25	3	230 L.	63-3200 4.8 Ch.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Pearless.....6-89	116	29x5.25	Own.	10-6-3-1/2x4	25	3	230 L.	63-3200 4.8 Ch.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Pearless.....6-89	116	29x5.25	Own.	10-6-3-1/2x4	25	3	230 L.	63-3200 4.8 Ch.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Reo.....Flying Cloud	115	28x5.25	Own.	16-2-3/2x4	27	3	230 L.	70-2800 4.25 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Reo.....8-78	121	32x6.00	Own.	GT 8-2-3/2x5	24	2	236 L.	70-2800 4.25 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Rosner.....8-80	126	32x6.00	Own.	4H 8-2-3/2x5	24	2	236 L.	70-2800 4.25 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Rosner.....8-88	126	32x6.00	Own.	4H 8-2-3/2x5	24	2	236 L.	70-2800 4.25 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Rosner.....9-92	126	32x6.00	Own.	4H 8-2-3/2x5	24	2	236 L.	70-2800 4.25 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.48 E.F.	I-R.	M...	Ross.	S-54.	Al.
Rolls-Royce.....Silver Ghost	138	33x6.75	Own.	4-3-1/2x5	38	1	288 L.	82-3200 4.6 Ch.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Ross.	S-54.	Al.
Rolls-Royce.....New Phantom	143	33x6.75	Own.	4-3-1/2x5	38	1	288 L.	82-3200 4.6 Ch.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Ross.	S-54.	Al.
Saints-Knight.....F-685	137-145	32x6.75	Own.	6-3-1/2x5	29	4	288 L.	82-3200 5.0 Ch.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Ross.	S-54.	Al.
Saints-Knight.....H & J	137-145	32x6.75	Own.	6-3-1/2x5	29	4	288 L.	82-3200 5.0 Ch.	Al.	7 Y.	PF.	Y. N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Ross.	S-54.	Al.
Studebaker.....Dittner	113	30x5.50	Own.	6-3-1/2x5	30	2	232 L.	82-3200 4.5 Ch.	Al.	5 Y.	PG.	N. Sch.	Y. Delo.	D-R.	P.B&B.	W.G.	Own.	4.33 F.	I-R.	M...	Ross.	S-54.	Al.
Studebaker.....Commander	120-131	30x5.50	Own.	6-3-1/2x5	30	2	232 L.	82-3200 4.5 Ch.	Al.	5 Y.													

from
rivers
to
drake tester

\$1375



TIRES CAR WASH Complete Brake Tester

An Attractive
Profit-Making Proposition

The Raybestos Company, with all its resources, reputation and responsibility now makes it possible for any repair shop, service station or car dealer to obtain complete brake service station equipment — from rivets to brake tester — for \$1375. Or, Raybestos Brake Tester may be purchased *separately* at the astonishingly low price of \$500., F. O. B. Niles, Ohio.

Raybestos Brake Tester is an accurate and efficient tester. Rugged in construction. All essential parts visible. Operated from one position. Requires no pit. Exactly reproduces road conditions represented by sliding platforms. Accurate tests whether tires are wet or dry. Car is driven up ramps onto platforms without slowing down to ride over rolls. "Electric lights tell the story at a glance." Operated from left side, close to pedal depressor. 3 checks—pressure gauge, indicator lights, moving platforms.



Manufactured
Under Kraft
Patent No. 1601739

This tester
\$500

Length 21 feet.
Width 5 feet 8".
Height 16". Weight
crated, approximately
2200 lbs. Power from air
compressor with accumulator
tank of 5 cubic feet displace-
ment, 100 lbs. pressure, if required
for continuous service.

F.O.B. Niles, Ohio

Com
Serv
E

Here is
including
Silver Ed
Lining in
all for
profits.
business.
This is yo

1. Raybe
2. Raybe
3. Raybe
1. Raybe
5. 500 fe
6. Merch

Send
for

again Raybes

Service Department

\$1375

Complete Brake Service Station Equipment

Here is everything necessary, including 500 feet of Genuine Silver Edge Raybestos Brake Lining in assorted sizes. And all for \$1375. Double your profits. Departmentalize your business. Include brake service. This is your opportunity.

1. Raybestos Brake Tester, \$500.
2. Raybestos Drum Lathe. Trues inside or outside of drum without removing drum from wheel or removing or deflating tires, \$525, for passenger cars. [Truck attachments, \$110 additional.]
3. Raybestos No. 4 Combination drilling and countersinking machine, riveter, rack for rivets, stock of rivets, \$90.
4. Raybestos C & G Super Wheel Puller with complete set of 24 adapters, \$60.
5. 500 feet of Silver Edge Raybestos.
6. Merchandising helps which sell your brake service to owners.

*Send Coupon To-day
for Complete Details*



MAIL THIS COUPON
THE RAYBESTOS CO., Bridgeport, Conn.
Gentlemen:—Send me details on Brake Tester and complete brake service equipment proposition.
Firm name
Street
City
Jobber's name
MA 7/19/28

leads 'em all.

-here's what for you to put this ad

WE not only furnish complete brake service station equipment, but we offer every possible aid to the serviceman after he has purchased this equipment.

We supply dealer helps of all kinds. Matrices for newspaper advertising. Folders. Blotters. Wall hangers. A brake service sign. Form letters. "The Silver Edge"—a magazine devoted to brakes and brake service.

Brake service bulletins. Clutch data, brake lining data, flat rate price book, price lists, chart of stopping distances and many additional factors which help to bring owners into your shop.

In other words, here is everything necessary to create and develop permanent and profitable brake service business.

THE RAYBESTOS CO., BRIDGEPORT, CONN.

THE CANADIAN RAYBESTOS CO., Ltd.

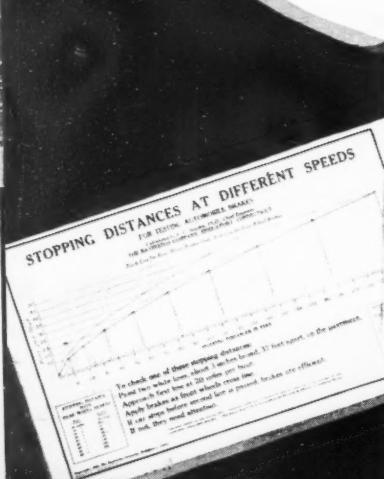
Peterborough, Ont.

RAYBESTOS-BELACO, Ltd.

London, England



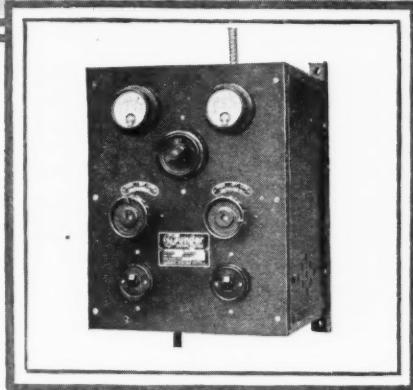
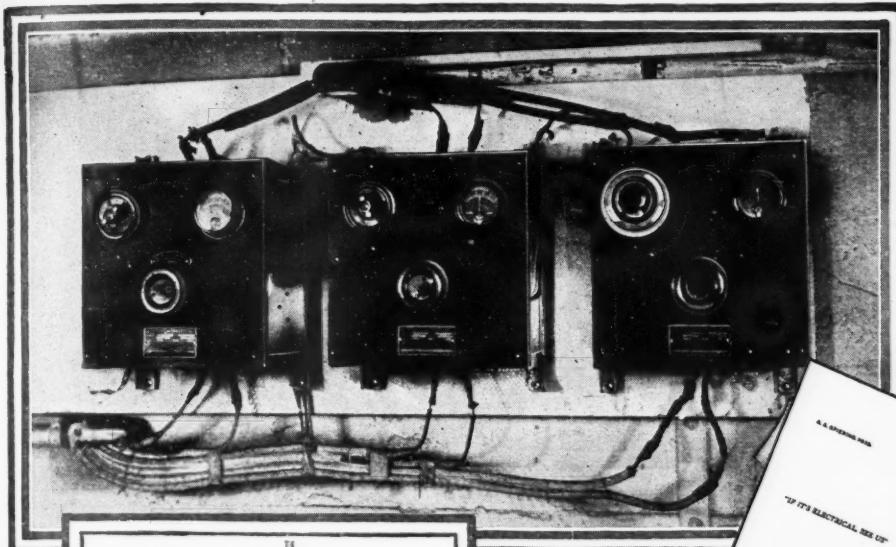
Silver Edge
Raybestos
BRAKE SERVICE
ADJUSTING-RELINING



1928
Raybestos
Brake Lining
and
Clutch Data
SHOWING SIZES REQUIRED
ON VARIOUS
AUTOMOTIVE VEHICLES
TOGETHER WITH
LIST PRICES

1928
Raybestos
Flat Rate
Prices
FOR THE GUIDANCE OF
AUTOMOBILE SERVICE STATIONS
IN CHARGING FEES FOR BRAKES

Peerless Electric, after ten years' use reports 100% satisfaction from three General Electric Battery Chargers



New Thirty-Battery General Electric
Battery Charger

\$135^{net}
(East
of
Rockies)

A Tungar that charges 30 batteries at a 6-ampere rate or 15 batteries at a full wave, one-day rate. G-E quality—absolutely dependable. And sold at the attractive price of \$135 net.

There is also a Fifteen-Battery Tungar that sells for \$75 net.

HEAVY DUTY

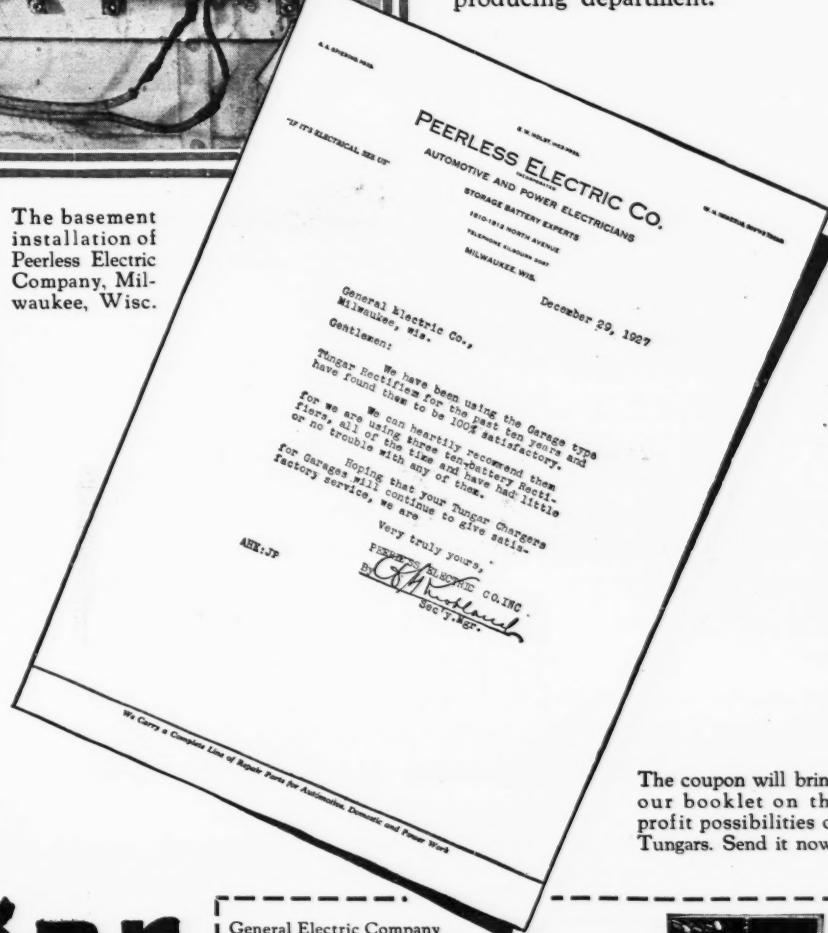
Tungar
REG. U.S.
PAT. OFF.
BATTERY CHARGER

Tungar—a registered trademark—is found only on the genuine. Look for it or the name plate.

Steady service—and these three G-E Tungars are in perfect condition after ten years.

Now General Electric Battery Chargers are available in even more convenient sizes, at prices that make them the most profitable investment in your shop or garage.

The thirty-battery Tungar can turn an idle corner into a profit-producing department.



We carry a complete line of repair parts for automotive, domestic and power work

The coupon will bring our booklet on the profit possibilities of Tungars. Send it now.

General Electric Company
Merchandise Department, (Section B-7)
Bridgeport, Conn.

I am interested in filling a corner with profit.
Please send me your booklet covering the 15 and 30-battery Tungars.

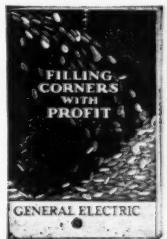
NO OBLIGATION

Name.....

Street.....

City.....

Please print plainly

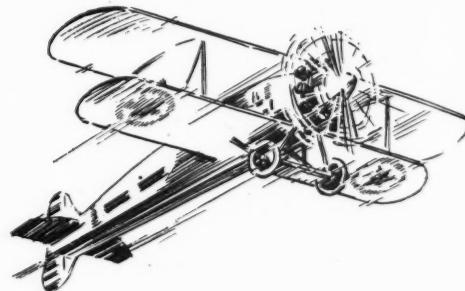


GENERAL ELECTRIC

U.S. Aircraft Carriers Safeguard Aircraft-motor Precision with Weidenhoff Equipment!



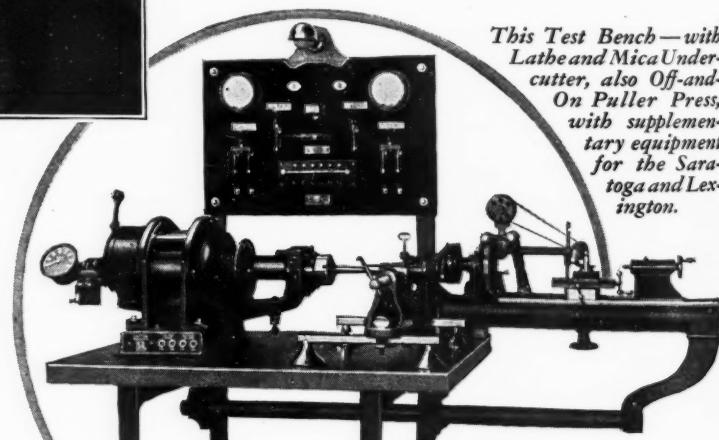
The Saratoga, pictured above, and her sister aircraft carrier, the Lexington, are noteworthy for the completeness of their equipment. Designed not only as mere "carriers" these ships are veritable floating airports and service stations. Two squadrons of heavy planes have been assigned to both the Saratoga and the Lexington. Two squadrons of the most modern fighting planes are also carried by each. In addition the Saratoga has twelve observation planes of the record-breaking VOUGHT CORSAIR TYPE and the Lexington six of the same class. 72 planes comprise the complement of each ship! Shops completely equipped to overhaul and test all types of aircraft engines are maintained on these two ships. Selected mechanics and the finest machinery available are provided by the U. S. Government for this important branch of naval work.



IT is a source of justifiable pride that Weidenhoff Equipment has been selected for installation on the two great Aircraft Carriers, the Saratoga and Lexington, mother ships of the Navy's bird-men.

In the automotive industry through years of use, Weidenhoff Equipment has established its supremacy beyond question. And now, this achievement is a significant expression of confidence from a most distinguished authority.

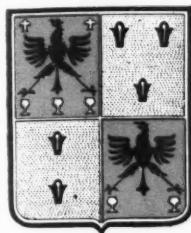
Every battery and electrical shop using Weidenhoff Equipment may well capitalize this endorsement of our Naval Engineers as proof of the service he is prepared to render his customers.



This Test Bench—with Lathe and Mica Undercutter, also Off-and-On Puller Press, with supplementary equipment for the Saratoga and Lexington.

Weidenhoff
SHOP EQUIPMENT for
BATTERY and ELECTRICAL SERVICE
4358 Roosevelt Road CHICAGO, ILL.

DeSoto



PROGRESS!

IN two months, ending June 30, more than 60% of the number of dealers set up as a quota to be reached during the first year had signed DeSoto Six sales agreements.

Not one of these dealers has seen the car—not one knows a single detail of specifications, save that it will have a six-cylinder power plant—not one knows the price at which it will be sold, nor the discount he is to receive.

But they do know, that the De Soto Six is a creation of Chrysler engineers, and is being built in the Chrysler factories. Beyond that, they need no assurance as to its

immediate public acceptance and profit possibilities.

If it were possible for us to do so at this time, we would be proud to disclose the identity of these new De Soto dealers, because the roster includes scores of names that, for many years, have been coupled with outstanding merchandising successes in the automobile industry.

Despite the rapid progress that has been made in building our dealer organization, there is still desirable open territory available, and interested dealers are invited to write for information.

C. W. Hetherington
Vice President in Charge of Sales

DE SOTO MOTOR CORPORATION
{Division of Chrysler Corporation} Detroit, Michigan

**DE SOTO
SIX**

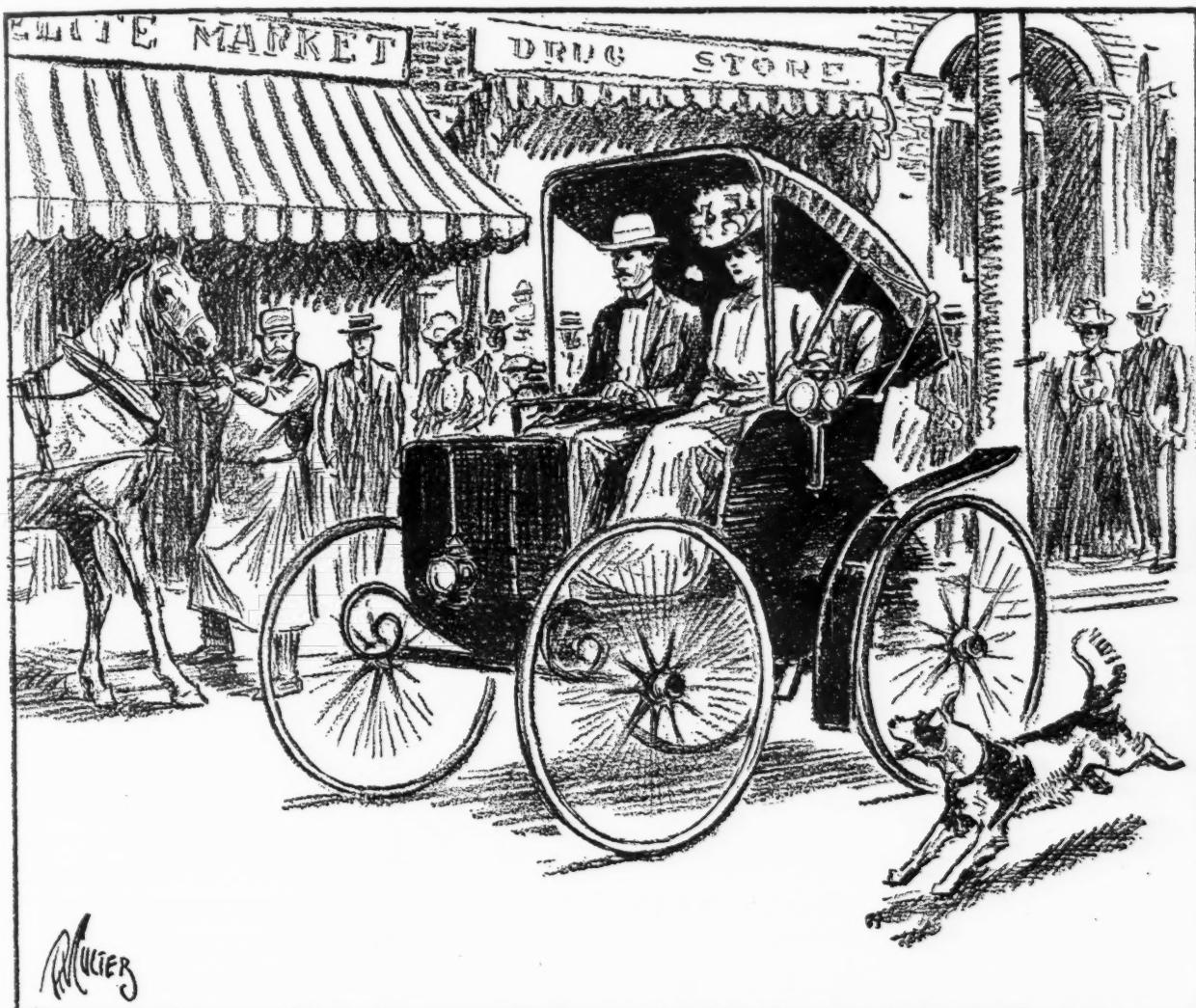
IMPORTANT Patent Information

Suit has been brought in the United States Courts of California against two manufacturers of brake testing machines, by the owners of Brennan patent No. 1,264,770.

In order to protect our customers, we have taken an exclusive license under this patent for the manufacture of dynamic brake testing machines.

Cowdrey Brake Testing Equipment is also manufactured under several issued patents as well as a number of pending applications. Purchasers and users of our equipment are therefore immune from patent difficulties.

The Cowdrey Brake Tester Organization
Fitchburg **Massachusetts**



In 1905 . . .

48" WOODEN WHEELS WAFTED THE SLIGHTLY TEMPERAMENTAL "MOTOR BUGGY" PAST FRIGHTENED HORSES AND ADMIRING SPECTATORS. (WE OF 1928 ARE INCLINED TO AGREE WITH THE HORSES.)

WHEN the "motor buggy" held the stage, and 15 miles an hour made Main Street gasp, these 48" wooden wheels answered very nicely.

But motor makers were ambitious. More power. More speed. High wheels couldn't stand the new pace. So wheelwrights made wheels smaller and stronger. Yet they held to the old tradition of wood and spokes until, in 1919 the Budd Wheel Company brought the motor car wheels of its own!

Budd-Michelin Wheels! Modern wheels! Graceful discs of cold-rolled steel that aren't afraid of speed and strain.

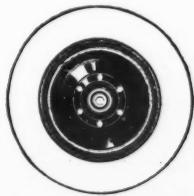
They're safe wheels! They've strength that only steel can give. No matter how hard the crash, a Budd-Michelin Wheel can't collapse and overturn the car. If an accident

should bend or dent one of them—and it takes a blow that would smash a wooden wheel—there's the extra Budd-Michelin to run home on. And the bent wheel can be straightened out as good as new for around three dollars.

The extra Budd-Michelin makes tire changing only a four minute job. Off with the wheel that has the flat. On with the extra wheel. And on your way!

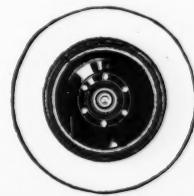
No spokes to collect the mud. No demountable rims to get out of alignment and run with the wobble that wrecks tires.

All in all, Budd-Michelins are wheels that help sell the car—not just something necessary to carry the car over the road.



BUDD

WHEEL COMPANY, DETROIT



Also makers of the Budd Interchangeable Wire Wheel and Budd Dual Wheel



A
M

SStatement of Facts

*about one of
the three largest
Automobile
Manufacturers*



WILLYS-OVERLAND on July 2nd built its two-millionth automobile.

Willys-Overland was the fourth manufacturer to pass the two-millionth-car mark.

Willys-Overland is the third manufacturer that has ever built more than 40,000 cars in any one month.

Willys-Overland is one of the three largest automobile manufacturers in the world.

The Willys-Overland dealer franchise is one of the most valuable in the industry. Get particulars.

WILLYS-OVERLAND, INC., TOLEDO, OHIO
WILLYS-OVERLAND SALES CO., LTD., TORONTO, CANADA

WILLYS-KNIGHT SIX
FOURS **WHIPPET SIXES**
FINE MOTOR CARS





Sales Are S

ACH succeeding month of 1928 has recorded steadily increasing retail sales of Graham-Paige motor cars. March, April, May and June consecutively established new sales records.

The dealer organization has been materially extended during these first six months, and dealers are reporting substantial profits.

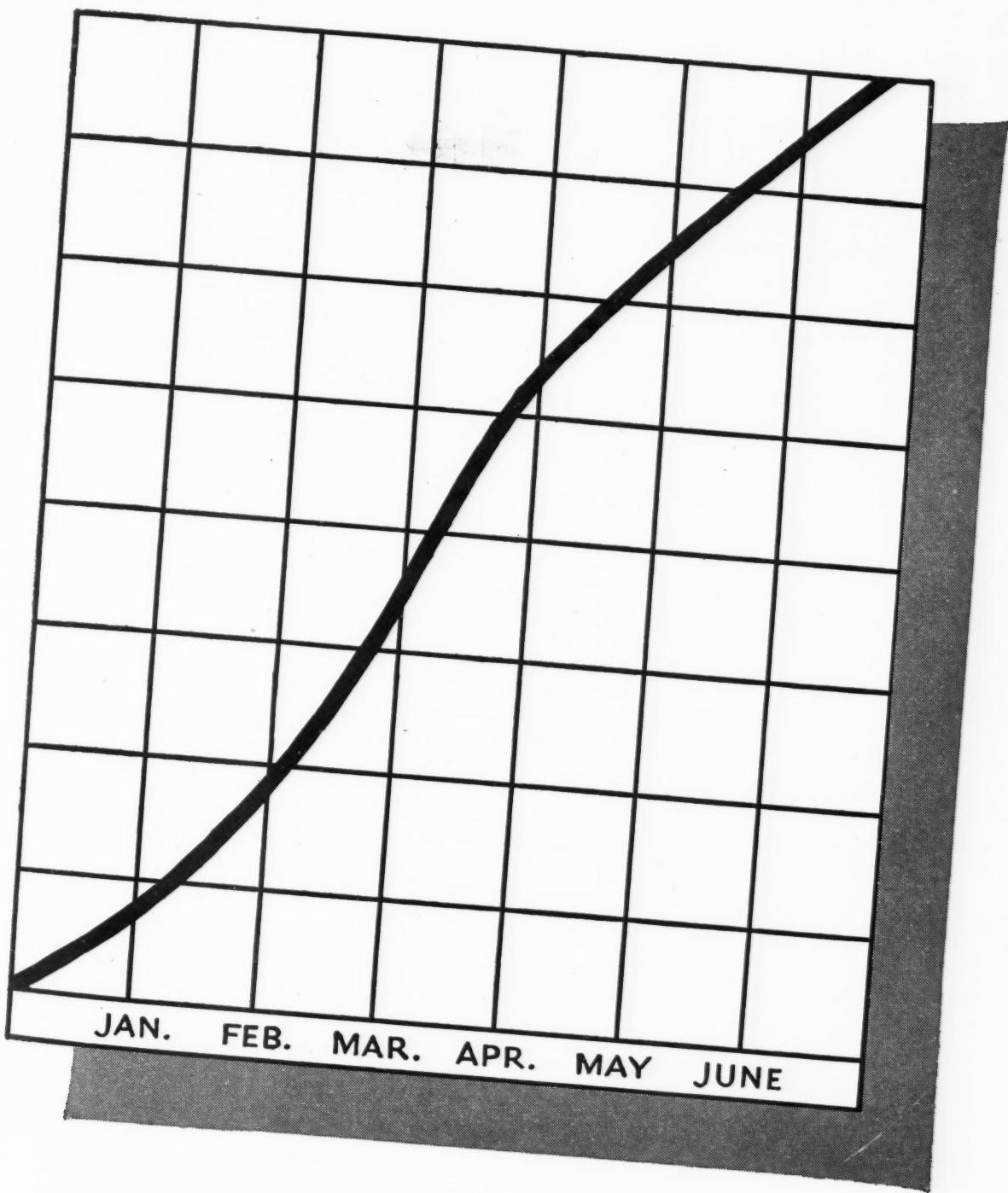
There are still desirable territories open, and inquiries from dealers who possess the three fundamental qualifications—Character, Capability, and Capital—will receive prompt consideration.

A complete line of motor cars—sixes and eights—ranging from \$860 to \$2485, f. o. b. Detroit. For further information, write Graham-Paige Motors Corporation, Detroit.

*Joseph B. Graham
Robert C. Graham
Ray A. Graham*

GRAHAM-PAIGE

Steadily Increasing



GRAHAM-PAIGE

(1120)

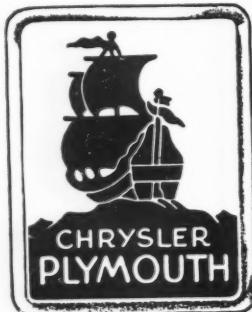
Announcing the New

CHRYSLER

PLYMOUTH

\$670

**and upwards,
f. o. b. Detroit**



Chrysler's Greatest Accomplishment in the Lowest-Priced Field—Now Offering Greatest Profit Opportunities —

In the Chrysler-built Plymouth, Chrysler now presents an entirely new car, dominating the field of greatest distribution, where volume sales and profit possibilities are at the maximum.

The Plymouth, because of its style, size, comfort, luxury and performance, absolutely outranks in value anything in the lowest-priced field. It is the new standard by which value in the lowest-priced group must hereafter be measured.

Every dealer knows there is a huge market ready for a really large car in the low-priced field, with ample seating for adult passengers—for a finely-upholstered car, with high-grade fittings and hardware—for a car of distinguished appearance.

Such a car is the new Plymouth. And it has, moreover, such features as these:

For the first time in the low-priced field, high-compression performance through the medium of the "Silver-Dome" high-compression engine which uses any fuel.

For the first time in this price group, light action hydraulic internal expanding four-wheel brakes as standard equipment.

For the first time the new narrow profile radiator, which alone is an outstanding design feature that will distinguish it in appearance from anything else.

For the first time in this price group the arched windows devised for the Chrysler cars of higher price.

For the first time expensive chromium plating heretofore found only on far costlier cars.

Sum up all these advantages. Keep in mind this is a Chrysler product, with all the advantages of Chrysler Standardized Quality and the ever-growing public acceptance of Chrysler. Volume business is inevitable.

Then bear in mind that Chrysler now offers a new and special Plymouth franchise. We may have just the opportunity you are seeking. You may find it to your advantage to get the facts immediately in regard to this proposition.

We shall keep your inquiry in strictest confidence.

PLYMOUTH MOTOR CORPORATION, DETROIT, MICHIGAN
(Division of Chrysler Corporation)

FLEXIBLE SHAFT AND ATTACHMENTS

SIOUX
Trade Mark Reg. U.S. Patent Office



No. 1230 PORTABLE TYPE, with 1-4 H.P. A.C. motor and universal joint, 6-in. grinding wheel attached to motor with guard and tool rest. Net price, complete \$118.50

Patented
January 15, 1924



No. 1220 PORTABLE TYPE with 1-2 h.p. A.C. or D.C. motor. Net price, complete with attachments \$128.00

A Modern Speed Tool that meets Modern Needs!

THESE special Sioux Flexible Shaft Outfits for Garages, Repair Shops, Service Stations, etc., save time and labor on many jobs... cleaning off carbon, valve-lapping, drilling, grinding, polishing, smoothing welds, etc. Brings the tool to the work, easy to work with. Built for long, hard service. Roller bearings on shaft—an exclusive Sioux feature—prevent friction and wear. Full power is delivered at the tool with shaft in any position. Remember, time saved means extra profit—especially with the prevailing system of flat rate charges.

Your Jobber Sells It

ALBERTSON & CO.
Sioux City, Iowa, U.S.A.

More than 61% Ahead of Production for 1927

Actual figures comparing Oakland-Pontiac production for the first five months of 1928 with production for a like period of 1927 show that this year's business in these two great General Motors Sixes is running more than 61 per cent ahead of business for last year.

Think what it means when one of the largest producers of automobiles in the world increases its volume to such a tremendous extent! Think what it means to Oakland-Pontiac dealers who were the envy of the industry even before this great increase began.

With record-breaking strides Oakland-Pontiac dealers all over the United States are forging ahead to leadership in the six-cylinder field.

Can you afford to overlook an opportunity to share in this electrifying success? There may be an opportunity for you to acquire the Oakland-Pontiac dealership in your own or a nearby locality. Write Dept. C for complete information today!

OAKLAND MOTOR CAR COMPANY, PONTIAC, MICHIGAN

OAKLAND-PONTIAC
Double-Profit
Franchise



The Automobile Industry had its choice and selected

AUTOMATIC Motor Protection

THE most dramatic development in the automobile industry this year is the adoption of *automatic motor protection* by the finest cars built.

Years of study have been devoted to this all-important problem of protecting the motor from cold.

Manufacturers had their choice of two ways. The first—a way that leaves this vital protection to memory and guesswork. The second—a positive, dependable, *automatic* way that works always with scientific accuracy.

The automobile industry has given its unqualified endorsement to the *automatic* shutter. It remains for every car and accessory dealer



to cash in on this great acceptance of automatic motor protection.

Pines Automatic Winterfront is the shutter you must sell to meet the demand this standard equipment will create. It is the only *automatic radiator shutter* on the market. Thermostats are guaranteed.

The big Pines Winterfront national advertising campaign will tell the world about this decision of the industry. It will send buyers to the dealers who have Winterfronts to sell.

Get lined up with your Winterfront distributor early this year. Don't miss a single Pines Automatic Winterfront sale.

*Thousands will demand Automatic Motor Protection
as a result of the equipment of these fine cars:*

HUPMOBILE 8 · CADILLAC · LA SALLE · LINCOLN · PIERCE-ARROW
and other fine cars

PINES
WINTERFRONT—*It's Automatic*

**PINES WINTERFRONT COMPANY, 410 N. Sacramento Blvd.
CHICAGO, ILLINOIS**

Wholesale distributing connections everywhere. Write us for name of your nearest distributor.

Here come the REPUBLICANS Both Good Americans



It's just a matter of taste.
Many dealers like a monthly—*Automobile Trade Journal*; many others prefer a weekly with frequent issues and lots of news—*Motor Age*.

Hence the Chilton Class Journal Company issues two dealer publications to assure the manufacturer of complete coverage. *Automobile Trade Journal* and *Motor Age* with 75,000 total

TOTAL

Minimum Duplication
Among Subscribers

DEALERS!

Motor Age, a weekly, 25,000 strong, used by dealers as a merchandising guide and a weekly newspaper of the trade. Established 1899. Use it with *Automobile Trade Journal* for complete coverage.

Come to Automotive

Motor Age

CHILTON CLASS JOURNAL

and DEMOCRATS -just a different viewpoint

net paid (minimum duplication) are so far ahead in the field that there is no question of their use by manufacturers who purchase on value.

As a student of merchandising or business psychology, you won't need any further argument on the soundness of the purchase of *Automobile Trade Journal* and *Motor Age* coverage.

75,000

Maximum Voting
and Buying Power



DEALERS!

Automobile Trade Journal, a monthly, 50,000 strong, looked upon by dealers as a monthly handbook for merchandising success. Established 1896. Use it with *Motor Age* for complete coverage.

Headquarters!

Automobile Trade Journal
COMPANY - 56th & Chestnut Sts. Phila

Kodaloid Just What You Want

Kodaloid (genuine Eastman Transparent Sheeting) is just what you want. It is packed flat, stays flat, is tough and easy to handle. It helps you to do your best.

Its unique transparency, flexibility, high natural gloss and freedom from color satisfy your trade.

Your jobber will supply you with Kodaloid in 25, 50 and 100-sheet packages which protect it until used. Kodaloid is supplied in first quality only. Use the coupon for free sample.

Eastman Kodak Company

Chemical Sales Department

Rochester, N. Y.

Eastman Kodak Company
343 State Street
Rochester, N. Y.

Gentlemen:

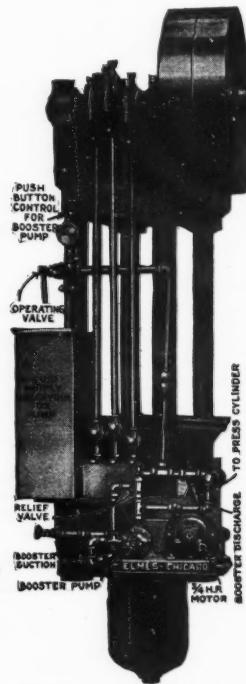
Please send me sample of Kodaloid for test and name of the nearest Kodaloid jobber.

Name _____

Address _____

SPEED UP TIRE SERVICE

More than 1,000 Service Stations and fleet owners use Elmes tire applying presses.



Our Booster Pump may be used on any make of press.

It gives customers the Best Service they can buy and Speeds up Saturday's Rush Work and Overtime Jobs.

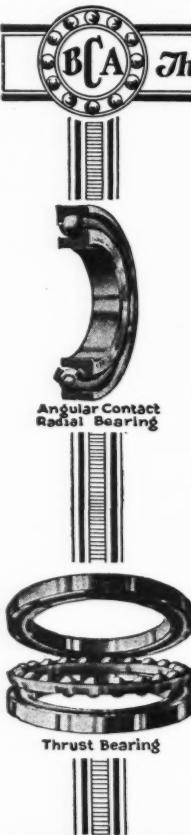
325-Ton Press With Booster Pump for Fast Work

CHARLES F. ELMES ENGINEERING WORKS
233 N. MORGAN STREET, CHICAGO, U. S. A.

E-HYDRAULIC-S
ELMES
PRESSES PUMPS CYLINDERS SINCE 1851



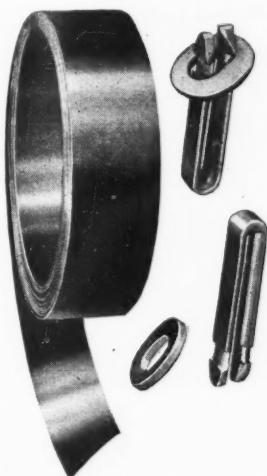
The Right Bearing For Every Car



It Depends On The Bearings

Whether or not the clutch operates easily and positively depends largely on the bearings. B. C. A. BALL BEARINGS, specially designed for the *Throwout* and *Pilot* positions, insure the kind of performance that automobile owners demand. The car equipped with B. C. A. BEARINGS is free from clutch bearing troubles.

Bearings Company of America
LANCASTER, PA.
DETROIT, MICH. OFFICE
1012 FORD BLDG.



Sells for only— —but sales volume means long profits for YOU

\$1

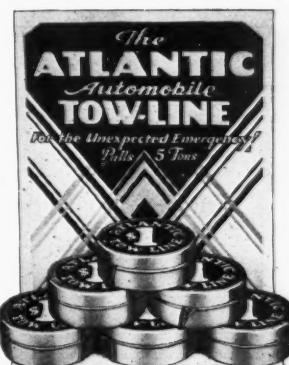
¶ The price alone sells Atlantic Tow Lines. A universal price—a dollar investment that will save a \$10 tow-in in the unexpected emergency.

¶ Display Atlantic Tow Lines with this new brilliantly colored display board where your customers will see and buy them.

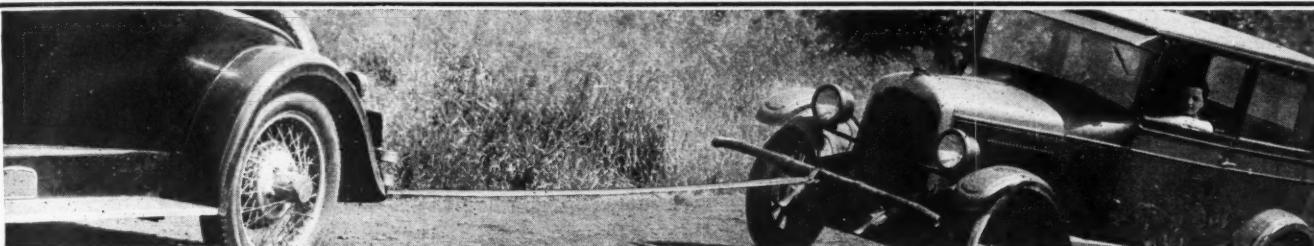
¶ The latest and greatest improvement in tow-lines. A 12-ft. length of high grade, special alloy steel, strong enough to pull 5 tons. A fast-selling item with real discounts for you. If your jobber cannot supply you—order a dozen for a starter direct.

Atlantic Tow Line Manufacturing Co.
509 Boardwalk

Atlantic City, N. J.



THE ATLANTIC AUTOMOBILE TOW LINE



20 million motorists will buy them for the Unexpected Emergency!

Keep Shop Cards Clean

And Avoid Loss of These
Important Records

Transparent celluloid face. Protects cards from grease, dirt and possible loss. Equipped with strong loop with snap fastener.

Ready for immediate shipment:

Sizes	Stock No.	Per Dozen
8½" x 9"	1103	\$5.50
7½" x 9"	1105	5.50
9½" x 11½"	1108	6.25

Liberal discounts to the trade.

KEEP KLEAN AUTO PRODUCTS CO., INC.
416 E. 176th Street

New York City

A necessity in every service and filling station. The flexible pouring tube stores inside the can when not in use.

Sold thru Jobbers!

5 gals.....\$5.00 ea.

2 gals.....3.50 ea.

DOVER STAMPING & MFG. CO.
Cambridge A, Mass.

CANTON TWO TON
*With Safety
FRICTION BRAKE*

\$175

**PAY FOR IT
OUT OF
EARNINGS**

When you pay \$175 for a CANTON with Safety Friction Brake you get what will LAST FOR MANY YEARS. Used by Ford, Dodge, Packard, White, etc. Ratchet and pawl type, \$125 for the 2-ton size. The Safety Brake easily installed on new or old Cantons—\$50. Meets all state safety codes. Locks load at any point. Load must be wound down. Ask about our Easy Payments. Write for 48-page catalog.

CANTON FOUNDRY & MACHINE CO.
CANTON, OHIO

UNIVERSAL SPRAY GUN

The Universal equips you to do spring lubrication, engine cleaning, painting, etc. You can add \$3 clear profit to your bill on every job.

QUICK PROFITS

for garages, service stations and repair shops.

The Universal Sprays oil, paint, cleaning liquid with equal efficiency. Air can be connected at either end of handle. New low price \$12.00. Write today.

ECONOMY MACHINE PRODUCTS CO.
5213-14 Lawrence Ave.
Chicago, Ill.



\$12.00

*Riding Ease for Your Customers
PROFITS for you in
WATSON STABILATORS*

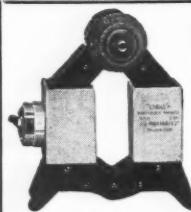
John Warren Watson Co. Philadelphia, Pa.

*the DURANT line
is a brilliant success*

DURANT MOTORS, Inc.

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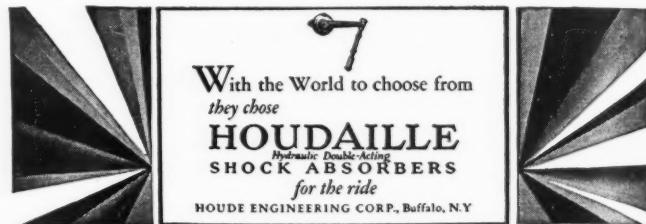
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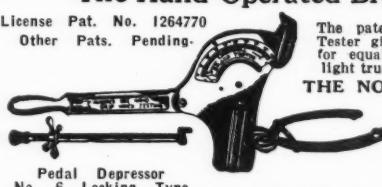
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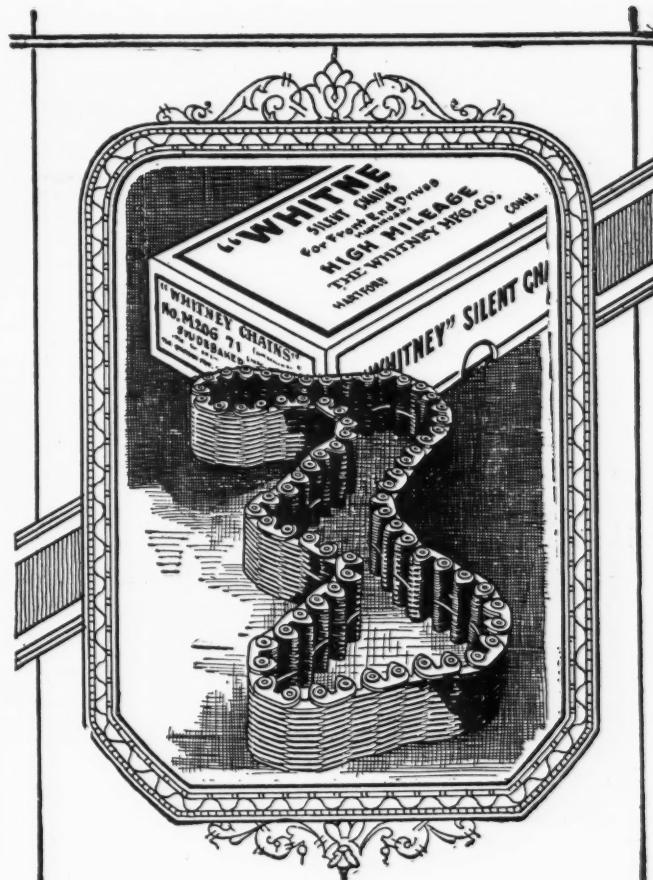
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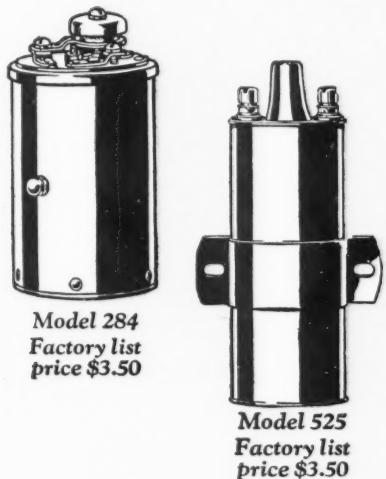
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